USAREUR Local Training Areas (LTAs)

FY09 STATUS REPORT

Sustainable Range Program (SRP)
Integrated Training Area Management (ITAM)

Prepared by USAREUR ITAM March 2010

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
MAR 2010		**00-00-2010 to 00-00-2010**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
USAREUR Local Training Areas (LTAs): FY09 Status Report, Sustainable RangeProgram (SRP) Integrated Training Area Management (ITAM)	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **7th US Army JMTC,ATTN: AETT-STS-TS (Bldg 3007),Unit 28130; Camp Normandy,APO ,AE,09114-8130**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**	**Same as Report (SAR)**	**80**	

USAREUR
LOCAL TRAINING AREAS (LTAs)

Integrated Training Area Management (ITAM) FY09 Status Report

Sustainable Range Program (SRP)

Prepared by USAREUR ITAM

March 2010

Contents

Executive Summary

Photo courtesy of www.army.mil.

EXECUTIVE SUMMARY

- FY09 ITAM expenditures for USAREUR Local Training Areas (LTAs) – RTSC Mannheim, $429,787; RTSC Schweinfurt, $514,392, and RTSC Italy, $588,470.

- FY08 ITAM expenditures for USAREUR LTAs – RTSC Mannheim, $390,250; RTSC Schweinfurt, $129,516; and RTSC Baumholder, $724,818.

- Total FY08 and 09 expenditure for USAREUR LTAs was $2.8M, all of which went to improve Army training lands and facilities in support of the training mission.

The Integrated Training Area Management (ITAM) program provides the capability to manage and maintain training land by integrating the training mission with environmental requirements and sound land-management. ITAM is part of the Sustainable Range Program (SRP), the Army's overall approach for ensuring long-term sustainability in designing, managing, and using its ranges and training areas.

The components of ITAM are Training Requirements and Integration (TRI), Sustainable Range Awareness (SRA), Range and Training Lands Assessment (RTLA), and Land Rehabilitation and Maintenance (LRAM). Geographic Information Systems (GIS) supports these components and other programs under SRP. Projects for each U.S. Army Europe (USAREUR) Local Training Area (LTA) can fall into any of these categories.

ITAM user requirements come about in response to needs generated at lower levels. These needs are then validated at higher levels, and ITAM provides project oversight and execution.

The Department of Army (DA) ITAM Program manager (DAMO–TRS) programs funds to support the ITAM core capability and approved projects. The Management Decision Package (MDEP) TATM is the primary fund source for USAREUR ITAM.

The USAREUR ITAM program operates under the premise that every soldier deserves the best possible training and learning environment to develop the skills to fight, win, and return.

This report summarizes the ITAM program for USAREUR Regional Training Support Centers (RTSCs) (Figure 1) for FY09 (excluding RTSC Vilseck – JMRC Hohenfels has a separate report[1]). The report provides information about the overall ITAM program and component goals and objectives as well as details of the individual projects executed according to the approved work plan.

Projects planned for FY10 are presented in the section following the FY09 section. Then, FY08 projects are updated in Appendix A, and FY07 projects are summarized in Appendix B. More detailed information about the FY08 and FY10 projects can be found on https://srp.army.mil in the Workplan Analysis Module (WAM). Printed copies of all ITAM status reports are available at the Training Support Centers (TSCs) and RTSCs, and this report is available in digital (PDF) format on the USAREUR Sustainable Range Program (SRP) webpage.

[1] Lipyanic, Deb M. December 2009. *JMRC Hohenfels Sustainable Range Program (SRP): Integrated Training Area Management (ITAM) FY09 Status Report.*

Background

Army Sustainable Range Program (SRP)

The SRP is the Army's overall approach to improve the ways it designs, manages, and uses its training lands and ranges to ensure long-term sustainability. It is directed by Headquarters Department of the Army (HQDA) G-3 Training Simulations Division (DAMO-TRS). SRP operates under three tenets: information excellence, integrated management, and dedicated outreach. These are explained as follows:

- Information excellence refers to using and providing the best-available information and science to support use and maintenance of land assets.
- Integrated management ensures that operations, facilities, and the environment directly supporting ranges and land assets are integrated to support training and testing missions.
- Dedicated outreach is responsible for explaining to the public and other crucial parties why training is essential to the Army mission and for addressing public concerns regarding training operations.

The goals of SRP are to maximize capability, availability, and accessibility of Army training lands. These goals are further explained below:

- Capability refers to enhancing, modernizing, and improving training lands to satisfy tactical training requirements.
- Availability is supported by the SRP staffing, managing, and operating ranges and training lands.
- Accessibility to training ranges and lands is the key to ensuring that units are trained and combat-ready.

SRP encompasses two core programs: the Range and Training Land Program (RTLP) and the Integrated Training Area Management (ITAM) Program. Both focus on the doctrinal capabilities of the Army's ranges and training land. These are centrally managed and staffed through Training Support Activities Europe (TSAE).

Photo courtesy: www.army.mil and Mark Heeter.

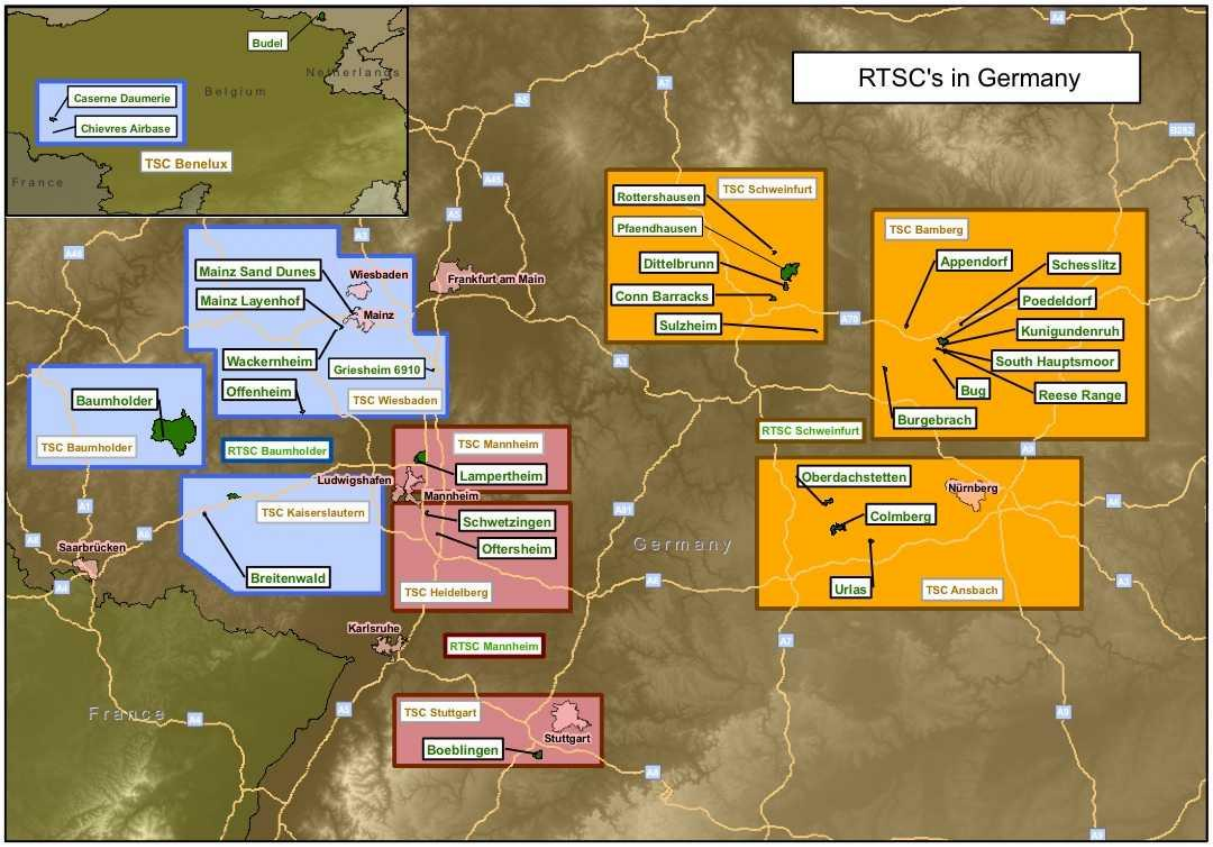

Figure 1 - USAREUR RTSCs and their LTAs

Range and Training Land Program (RTLP)

The Range and Training Land Program provides for central management, programming, and policy for modernization of the Army's ranges and their day-to-day operations.

Integrated Training Area Management (ITAM) Program

The ITAM Program provides Army Range Officers with the capability to manage and maintain training land by integrating mission requirements with environmental requirements and sound land-management practices. These actions serve to guarantee long-term usability of the land for military training.

RTLP and ITAM support the SRP goals in the following ways:

- Provide project support, engineering support, and technical support.
- Provide program assistance and oversight.
- Address encroachment issues.
- Check and ensure full compliance with environmental laws and regulations on Local Training Areas and Ranges.
- Provide funding to correct problems.

Purpose

The purpose of this report is to provide to Headquarters, Department of Army (HQDA); Army Service Component Command (ASCC); and U.S. Army Garrison (USAG) Commands a status report including:

- FY09 ITAM Program accomplishments for each of the USAREUR RTSCs that have ITAM projects (excluding Vilseck). This includes a review of the FY09 workplan and the progress of each project;
- planned FY10 RTSC projects;
- project summaries for FY08 (Appendix A); and
- project list for FY07 (Appendix B).

ITAM History at USAREUR RTSCs

- In 1985, after years of heavy maneuver training which led to severe degradation of maneuver areas, Hohenfels Training Area (HTA) became one of the Department of Army ITAM program pilot sites. At that time, 98 RTLA plots were set up for monitoring purposes.
- In 1990, the ITAM program began in Grafenwöhr, Germany, when 70 RTLA monitoring plots were installed.
- By 1995, the ITAM program was in use at Friedberg and Schweinfurt; although, as of 2009, Friedberg is no longer a U.S. Army training facility. Twenty RTLA plots were set up for monitoring on Schweinfurt. These, however, were not monitored from 2007 through 2009, nor are they slated for 2010.
- The ITAM program was implemented at the remaining RTSCs by around 2001.

ITAM Program Components and GIS

Training Requirements Integration (TRI) – provides a decision support procedure that integrates training requirements with land management, training management, and natural and cultural resource management processes.

Sustainable Range Awareness (SRA) – provides a means to develop and distribute educational materials to land-users. The purpose of these materials is to promote visibility of environmentally-sensitive issues and to instill a stewardship ethic among users of military lands. The SRA component applies to soldiers, other military services using Army lands, installation staff, other land-users, and the public.

Land Repair and Maintenance (LRAM) – provides a preventive and corrective land rehabilitation and maintenance procedure to reduce the long-term impacts of training and testing on an installation. It includes training area redesign and/or reconfiguration to meet training requirements. LRAM uses standard, proven best management practices including re-vegetation and erosion control techniques to sustain the overall condition of installation lands required to support the military mission.

Photo courtesy: www.army.mil and Karl Weisel

Range and Training Lands Assessment (RTLA) – collects, inventories, monitors, manages, and analyzes tabular and spatial data concerning land conditions on an installation.

Geographic Information Systems (GIS) – GIS is the foundational support element of the SRP. SRP GIS provides information dominance to ensure SRP provides effective mission support. Information dominance is supported by the SRP GIS program by providing the best, most accurate, complete data through user-friendly GIS products and applications, provided by the best-trained GIS technicians in the Army.

ITAM Project Development

ITAM projects are developed at the LTA level based on military training requirements, using the LRAM 5-Year Plan as an active planning reference. The projects are entered into WAM by the LTA Coordinator, reviewed by the TSC Chief, and submitted by the RTSC RTLP/ITAM Officer. The ITAM project list is passed on to the USAREUR ITAM Program Manager (PM).

In Europe, the PM is also the Army Service Component Command (ASCC) representative. The ITAM PM prioritizes the entire list of projects, and the JMTC Director of Simulations and Training Support (DOS-TS) briefs the prioritized list at the SRP Program Budget Advisory Committee (PBAC). Once the list is vetted at the SRP PBAC, it is sent to the JMTC Commander for an approval memo. The approval memo allows Resource Management to obligate funds against the list as they become available throughout the year, according to the obligation plan.

The DA ITAM Program manager (DAMO–TRS) programs funds to support the ITAM core capability and approved projects. Specific funding includes the following: The Training Program Execution Group (TT PEG) provides resources for the ITAM Program in MDEP TATM. Funds in MDEP TATM support the ITAM core capability across the Total Army. TATM is a component of the Army's Operational Readiness program and provides for central funding of the ITAM Program through Operations and Maintenance, Army (OMA); Operations and Maintenance, Army Reserve (OMAR); and Operations and Maintenance, Army National Guard (OMNG).

ITAM core capability resourcing is integrated with other program resourcing requirements, such as range operations, environmental programs, and real property maintenance. These resources support the land management requirements of installations that, in turn, support the training mission.

ITAM funding cannot be used to—

1. Correct statutory environmental compliance requirements;
2. Perform routine range maintenance; range modifications; or Sustainment, Restoration, and Modernization (SRM) responsibilities;
3. Fulfill Army conservation program requirements; or
4. Acquire GIS data layers that are not a part of the ITAM requirement.

The ITAM program manager (DAMO–TRS), in conjunction with the ITAM management working group, Installation Management Command (IMCOM), and Army Service Component Commands (ASCCs), coordinates central funding for the Army-wide ITAM core capability through the Program Management Review (PMR) process.

The SRP website provides detailed descriptions for identifying, prioritizing, and planning ITAM projects. The SRP website also identifies the automated tools that support ITAM planning, project execution, and management.

Photo courtesy: www.army.mil and Mark Heeter

FY09 ITAM
STATUS REPORT

Photo courtesy: www.army.mil.

For the LRAM 5-Year Plan, site visits were conducted at each training area to assess potential LRAM projects, priorities, inter-agency coordination requirements, and quantities for cost estimates. A Global Positioning System (GPS) and photographic survey was conducted at each project site. Local issues for these training areas were identified by the RTSC ITAM Coordinators, working in conjunction with the Department of Public Works (DPW) Environmental Management Office (EMO), and Forstamt (Forestry). As appropriate, projects were flagged if they required the submission of a DD 1354 Real Property Transfer Form (to be submitted by the Contracting Agency, e.g., U.S. Army Corps of Engineers). This is intended to highlight projects that may be eligible for Sustainment, Restoration, and Modernization (SRM) funding to sustain them in the long term. Cost estimates were developed for each project using Contract Line Items (CLINS) from the U.S. Army Corps of Engineers (USACE) Unit Price Book (2005) as a basic guide.

Along with a project methodology and cost estimate, each project has a description, Benefits to Training, Impact if Not Funded, and a graphics page that includes topographic and aerial imagery maps and photographs. This information forms the basis of the Workplan Analysis Module (WAM) submission. Each year, these projects are re-validated and re-assessed, as priorities may change due to the impacts of training, changes to training objectives, tactics and usage, or the effects of weather. In addition, cost estimates are subject to change because of fluctuations in exchange rates or inflation.

The 2009 projects are shown in Table 1.

FYO9 ITAM WORKPLAN

Table 1 - FY09 RTSC ITAM projects

Training Area	RTSC	Project ID	Title	Com-ponent	Estimated Cost	Actual Cost
Boeblingen	RTSC Mannheim	W912GB-09-D-0055-0009	Eastern Boundary Trail Repair	LRAM	$185,000.00	$223,313.23
Boeblingen	RTSC Mannheim	W912GB-09-D-0055-0009	Training Area 9 Trail Repair	LRAM	125,024.04	94,124.97
Boeblingen	RTSC Mannheim	W912GB-09-D-0055-0009	Pond Connector Trail	LRAM	77,563.57	55,000.00
Boeblingen	RTSC Mannheim	W912GB-09-D-0055-0009	Training Area 3 Trail Repair	LRAM	75,000.00	57,349.15
				RTSC Mannheim TOTAL	**$462,587.61**	**$429,787.35**
Oberdachstetten	RTSC Schweinfurt	WO # TRO-00017-8P	Repair Trail at Oberdachstetten	LRAM	243,282.00	203,392.00
Oberdachstetten	RTSC Schweinfurt	WO# TRO-00036-8P	Storm Drainage Channels/ Retention Basins	LRAM	350,000.00	250,000.00
Pfaendhausen	RTSC Schweinfurt	WO#TL-00028-6P; WO#TL-00026-6J	Repair Dirt Trail Area North LTA Pfaendhausen	LRAM	60,000.00	39,194.35
Pfaendhausen	RTSC Schweinfurt	WO# TL-00030-8P	Repair Dirt Trail at Mobile MOUT Site	LRAM	12,000.00	6,805.65
Poedeldorf	RTSC Schweinfurt	WO#IG8-00028-9	Repair Maneuver Trail	LRAM	15,000.00	15,000.00
				RTSC Schweinfurt TOTAL	**$ 680,282.00**	**$514,392.00**
Several	RTSC Italy		Aerial Imagery	GIS	307,000.00	
Cao Malnisio LTA	RTSC Italy		Cao Malnisio Maneuver Trail Renovation	LRAM	281,470.60	
				RTSC Italy TOTAL	**$588,470.60**	

FY09 Project Reviews
RTSC Baumholder

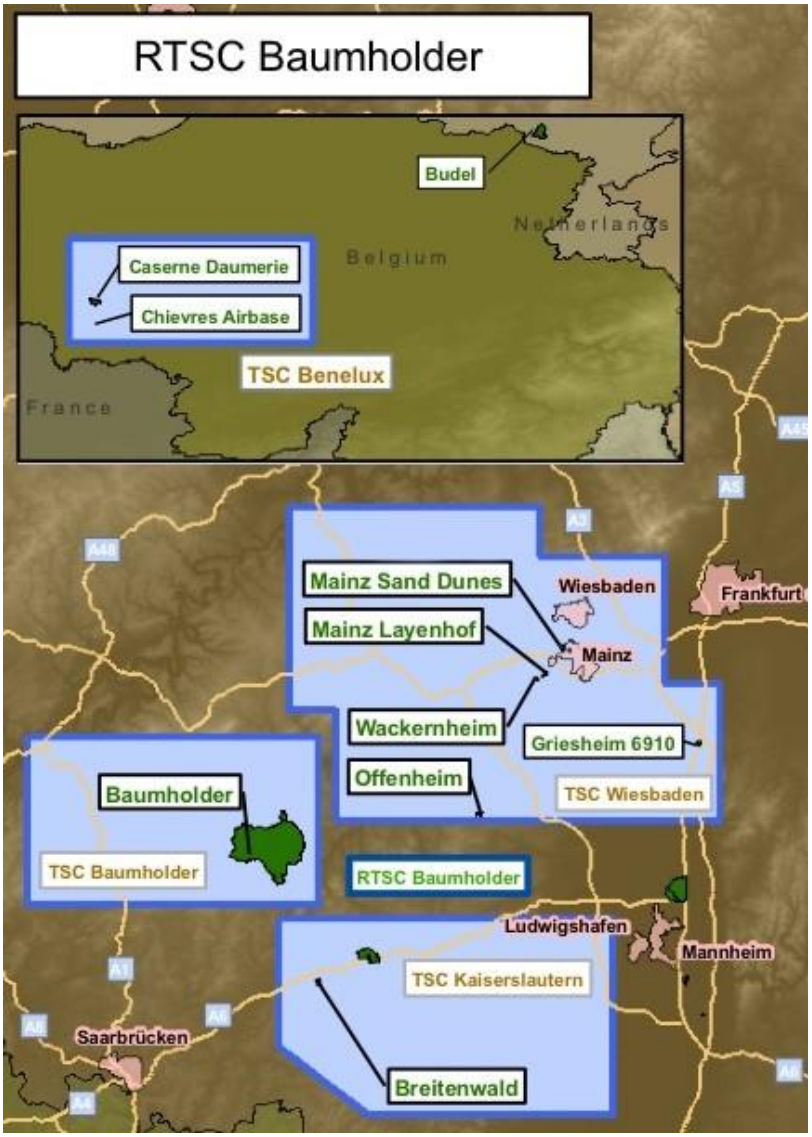

Figure 2 - RTSC Baumholder training areas

RTSC Baumholder consists of the following training areas:

U.S. Army Garrison (USAG) Baumholder is 24 miles (40 km) northwest of Landstuhl and 32 miles (50 km) west-northwest of Kaiserslautern. It comprises two training areas for a total area of 258 acres (104.4 ha). Training activities and facilities include: firing ranges; small indoor arms range; a MOUT site; and a Tank Crew Proficiency Course/Bradley Crew Proficiency Course (TCPC/BCPC). Specific mission

objectives include: facilitate common soldier task testing (land navigation training, perimeter setup, driver training); marksmanship training using Engagement Skills Trainer (EST) and other Training aids, Devices, and Simulators; support company-level dismounted training, command field exercises, and tactical drivers training; Nuclear, Biological, and Chemical (NBC) chamber for individual NBC training and familiarization; provide additional training support to all units in the USAREUR footprint through MOUT; checkpoint and/or roadblock and refuelling operations; enhance host-nation attitudes and cooperation; and limit negative impact on the installation and German community environments.

TSC Wiesbaden is located in the Darmstadt region in the state of Hessen and in the Neustadt and Weinstrasse region in Rheinland-Pfalz. TSC Wiesbaden maintains four training areas equalling 331 acres (134 ha). Training operations are restricted by training area size. Mission objectives include the following: facilitate common soldier task testing (land navigation training, perimeter setup, and driver training); marksmanship training using Engagement Skills Trainer (EST) and other Training aids, Devices, and Simulators; support company-level dismounted training, command field exercises and tactical drivers training; Nuclear, Biological, and Chemical (NBC) chamber individual NBC training and familiarization; provide additional training support to all units in the USAREUR footprint through MOUT, checkpoint and/or roadblock and refuelling operations, rifle and pistol ranges including a Combat Pistol Qualification Course (CPQC), Hand Grenade Qualification Course (HGQC), M203 40 mm grenade launcher range, convoy reaction course; enhance host-nation attitudes and cooperation; and limit negative impact on the installation and German community environments.

Kaiserslautern is the largest American military community outside the U.S. and includes the only large air base in Germany – Ramstein. The training area is small (127 acres or 51.4 ha). The main training activity is wheeled maneuver training.

FY09 RTSC Baumholder ITAM Program Accomplishments

There were no FY09 ITAM projects at RTSC Baumholder.

Photo courtesy: www.army.mil and Sgt. Fay Conroy

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FY09 Project Reviews
RTSC Mannheim

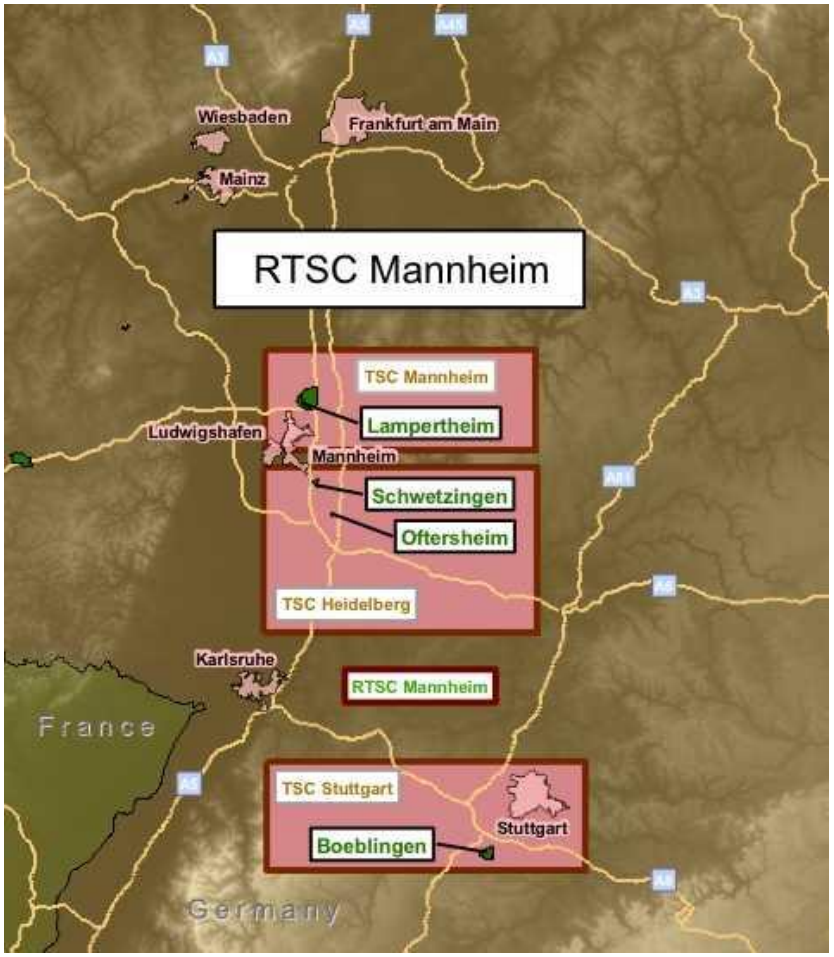


Figure 3 – RTSC Mannheim training areas

RTSC Mannheim is comprised of three TSCs – Mannheim, Heidelberg, and Stuttgart. These are described below.

TSC Mannheim is located in the state of Hessen while ***USAG Mannheim*** is located in the state of Baden Württemberg in southern Germany. TSC Mannheim is primarily made up of Lampertheim LTA, which consists of 4,086 acres (1,654 ha) on the southern boundary of Hessen. Approximately 10-percent of the training area is in a water protection area. Training activities and facilities include: dismounted maneuver training and wheeled maneuver training; air assault operations; land navigation course; pole orchard; MOUT site; Hand Grenade Course; NBC chamber; and firing

ranges. At Coleman Barracks is a ten-lane Engagement Skills Trainer (EST) 2000 facility, Call for Fire Trainer, and HMMWV Egress Assistance Trainer.

TSC (USAG) Heidelberg is located in the state of Baden Württemberg, south of Frankfurt. It is home to Headquarters, U.S. Army Europe, 7A U.S. Army; Headquarters, V Corps; Joint Headquarters Center; and several other ACOMs. USAG Heidelberg contains a small training area (294 ac or 119 ha). Training activities are restricted, partly because of a water protection area. The main training activity and facilities are rifle and pistol ranges, a five-lane EST 2000 facility, and a NBC Chamber.

TSC (USAG) Stuttgart is located in the state of Baden Württemberg in southern Germany. It contains Boeblingen LTA (1,442 ac or 584 ha). Training activities and facilities include: dismounted maneuver and wheeled vehicle maneuver; rappel tower; climbing wall; land navigation; rifle ranges; a Combat Pistol Qualification Course (CPQC); MOUT site; Close Quarters Combat facility; Combat in the City facility; Advanced Mobility Course; Multi-purpose M203; Breaching, and Demolition Range; and a five-lane EST 2000 facility.

FY09 RTSC Mannheim ITAM Program Goals

Goal 1. Maximize training land sustainability.

- Aggressively seek and obligate funds for projects as funds become available, and execute as soon as weather or other conditions permit.
- Review, update, and publish ITAM Five Year plan.
- Continually conduct assessments of training requirements and training land capabilities.

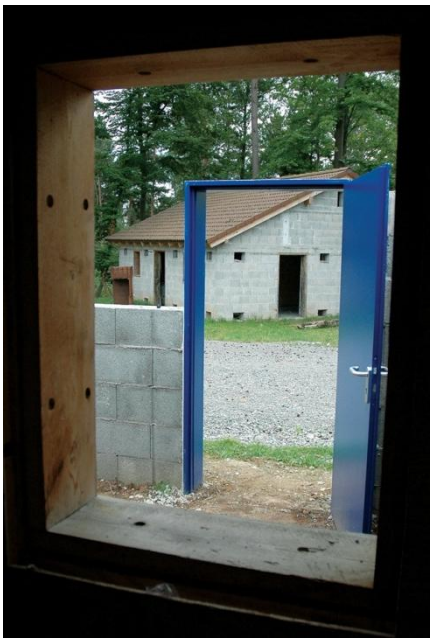
Goal 2. Provide quality information.

Goal 3. Increase SRA Outreach and Inreach.

The primary goal of the ITAM program is to maintain the training environment in a 100%-readiness condition. To meet this goal, the ITAM work plan was prepared in such a way that available funds can be executed throughout the year, with the entire work plan being funded.

FY09 RTSC Mannheim ITAM Program Accomplishments

There were no TRI, SRA, GIS, or RTLA projects for RTSC Mannheim in FY09.



Above: *MOUT site, TSC Stuttgart. Photo courtesy: www.army.mil and Brandon Beach*

LRAM

The predominant problems encountered within RTSC Mannheim relate to trail repair and re-establishment, the management of storm water drainage, and opening up of bivouac sites. The focus at Boeblingen LTA is to maintain and improve access to the MOUT site and bivouac sites, and to conduct maintenance on storm water drainage systems.

FY09 LRAM Objectives

- Provide preventive and corrective land rehabilitation and maintenance measures;
- Track progress of projects; and
- Recommend future improvements to maintain integrity of training resources.

FY09 LRAM Measures of Effectiveness

Each of the projects covered in the following section is intended to fulfill one or more of the following:

- Sustain long-term training lands held under the stewardship of the U.S. Army.
- Sustain the overall condition of installation lands to ensure long-term military viability of its installations.
- Increase mobility, access, and availability within and between training areas.

Boeblingen LTA - Eastern Boundary Trail Repair

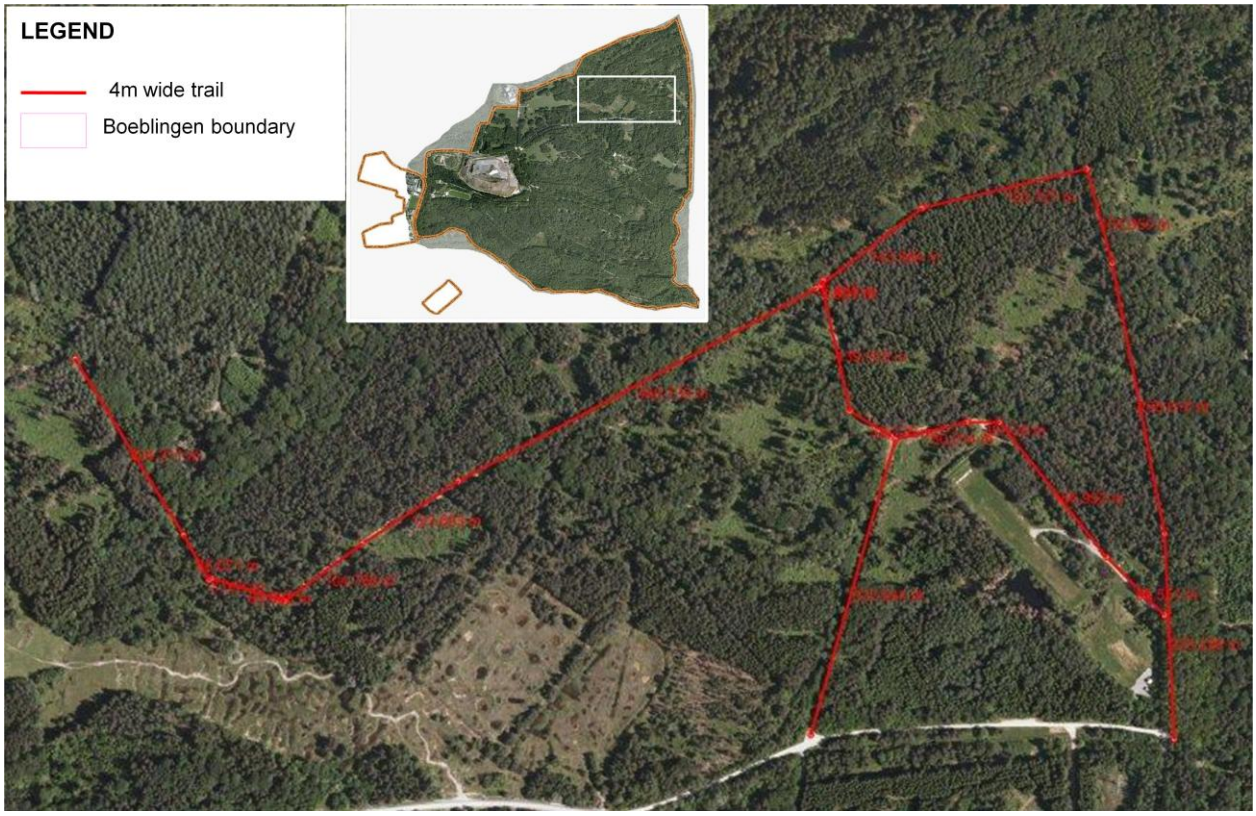


Figure 4 – Project location, Boeblingen LTA.

Purpose

The purpose of this project was to repair 3000 meters (1.8 mi) of maneuver trails running along the east/north-east boundary of the Boeblingen LTA. These repairs allow dependable access to the MOUT site, Range 8, and the Northeast sector of the training area from within the LTA.

Benefit to Training

These maneuver trails are the principal routes for Range 8 and the northeast portion of the LTA. Without repair, the trails would become hazardous for travel, and access to facilities and training areas would be restricted, including restrictions on vehicles supporting dismounted land navigation training and any medical emergency evacuations.

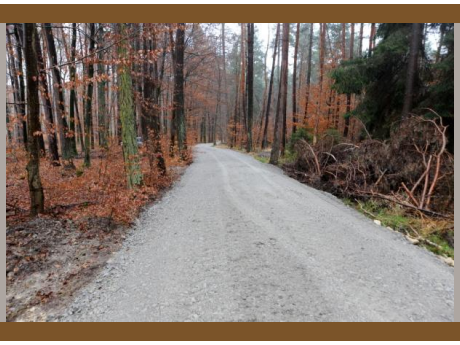
Methods, Details, and Measures of Success

Table 2 - Details for Eastern Boundary Trail repair.

FY09 LRAM - Eastern Boundary Trail Repair - W912GB-09-D-0055-0009		
Task	**Location and Description**	**Status**
	Trail repairs. Profiled crown re-created.	Complete.
	Drainage infrastructure repaired; debris cleaned out; support structures checked for stability.	Complete.

***Left*: Eastern Boundary Trail, before.**

***Right*: Eastern Boundary Trail, during.**



Boeblingen LTA - Pond Connector Trail

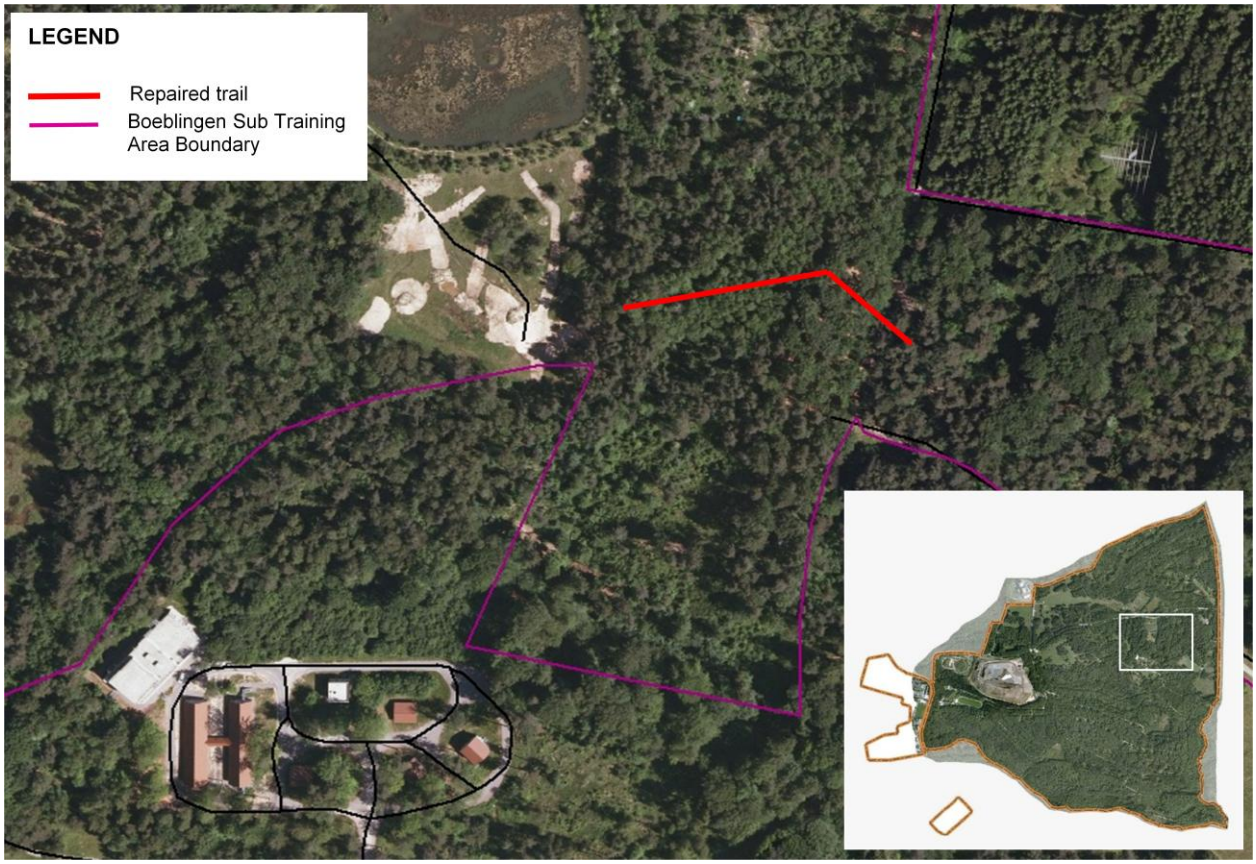


Figure 5 **–** Project location, Boeblingen LTA.

Purpose

The purpose of this project is to repair and extend the 170-meter (0.1 mi) Bivouac 1 Access trail (a maneuver access trail) that links two existing N-S trails. In support of the JMTC training mission, this allows for improved accessibility to the northern part of TA 8 North by units conducting convoy training.

Benefit to Training

LTA Boeblingen is a training resource required for preparing military personnel and units for deployments. Proper maintenance and repair of the LTA is essential for ensuring that JMTC units remain proficient at performing their mission-essential tasks.

This trail lies within a fenced MOUT training area where blue tip (M862) ammunition is authorized. Realistic convoy reactionary training can be accomplished here without encroachment concerns.

Without the repair and construction of the trail, the northern portion of TA 8 North would not be accessible by maneuver units for conducting critical convoy training utilizing blue tip ammunition. This repair work was needed to establish and connect trails within the LTA so the soldiers have more terrain for training and have easier access to various parts of the MOUT site.

Repairing this trail also reduces the wear and tear on other trails. Failure to maintain this site and its associated ancillary infrastructure in an appropriate state would reduce mission readiness.

Methods, Details, and Measures of Success

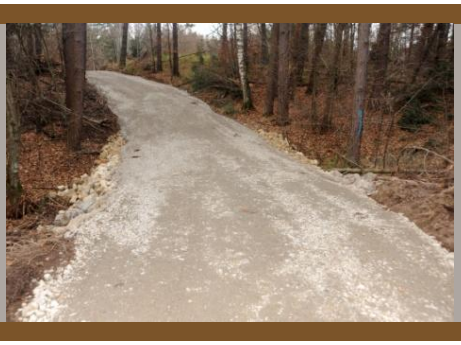
Table 3 - Details for Pond Connector Trail repair.

FY09 LRAM – Pond Connector Trail - W912GB-09-D-0055-0009		
Task	**Location and Description**	**Status**
1	Develop work plan and schedule.	Ongoing – 70% complete
2	Repair Bivouac 1 Access Trail	Ongoing – 70% complete
	Completion report	

To repair the Bivouac 1 access trail, approximately 150 m of new, gravelled trail between the current sandy area south of the pond and the bivouac had to be created. Because the trail crosses a stream, a culvert (DN 400) was required. A drainage ditch was installed along one side of the trail. Tree removal and woody debris disposal were coordinated with Forestry.

All trail and drainage features were designed, constructed, repaired, and/or upgraded during this project so they will endure for a minimum of five years without needing significant repair or modification, based upon historical precipitation levels. Drainage ditches were designed and constructed to facilitate the rapid removal of precipitation from the trail. The trails were designed to withstand use by five-ton, High-Mobility Multipurpose Wheeled Vehicles (HMMWVs).

Pond connector trail, before.



Boeblingen LTA - Training Area 3 Trail Repair

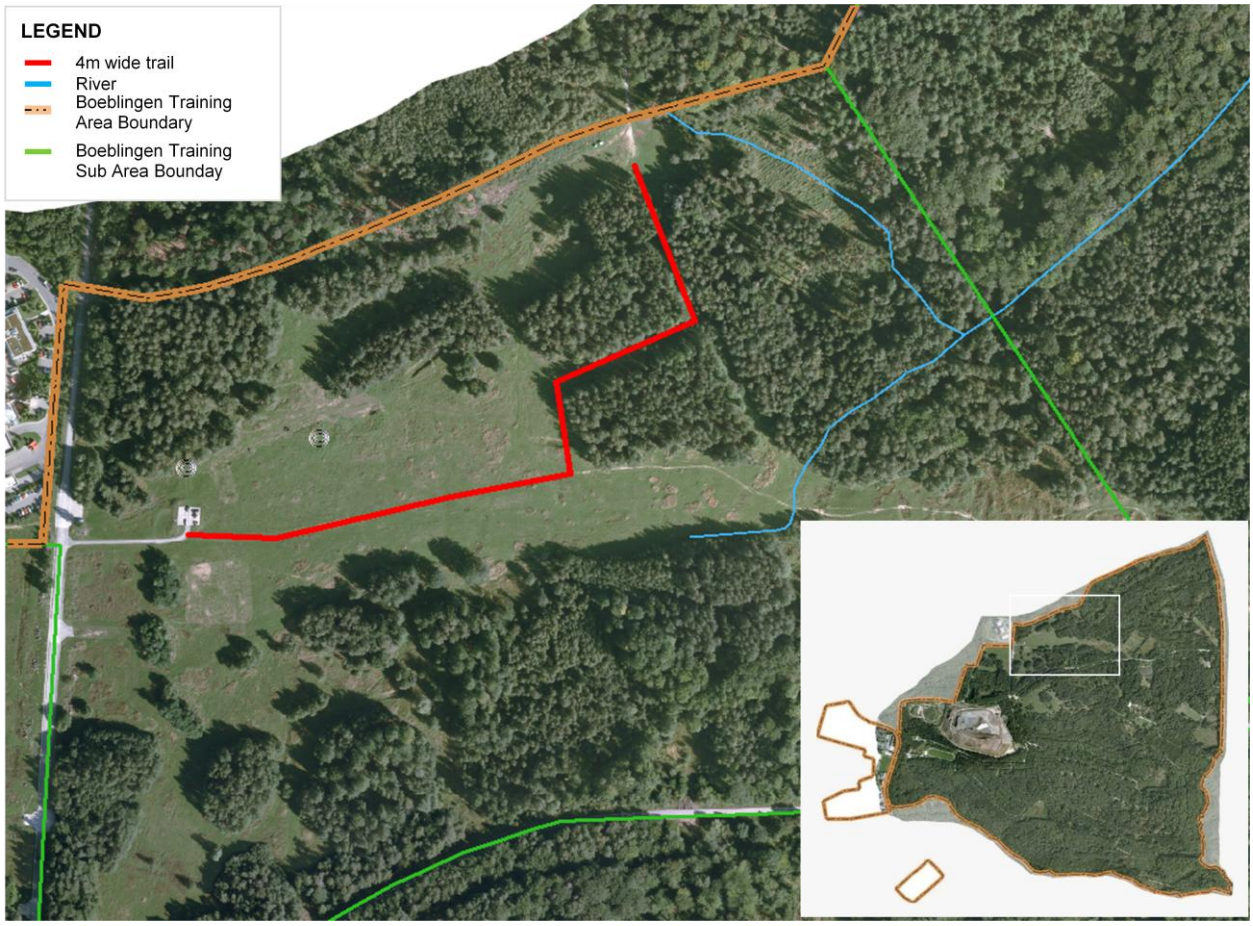


Figure 6 – Project location, Boeblingen LTA.

Purpose

The purpose of this project is to renovate 580 meters (0.35 mi) of trail along the northern boundary of the LTA in Training Area 3. This upgrade will allow Soldiers to remain in the LTA when travelling between training sites.

Benefit to Training

Without this trail renovation, there is no northern boundary trail for the Boeblingen LTA. Soldiers are forced to exit the training area, travel on community forestry trails, and then turn back into the training area in order to travel between the Practice Hand Grenade Course and Bivouac Site 2. This trail is necessary to be able to maintain travel within Maneuver Controlled areas.

By making this trail usable, traffic within the area will be increased. Soldiers will no longer have to exit the installation to traverse the northern boundary, keeping training more contained, and having less of an impact on the surrounding community.

Methods, Details, and Measures of Success

Table 4 - Details for Training Area 3 Trail repair.

FY09 LRAM - Training Area 3 Trail Repair - W912GB-09-D-0055-0014		
Task	**Task Description**	**Status**
1	Develop work plan and schedule	Ongoing – 70% complete
2	LTA maintenance – Repair Maneuver Trail TA 3	Ongoing – 70% complete
3	Completion report	

Three-hundred meters (975 ft) of existing trail (3.5 m wide) were decompacted and re-compacted. About 10 cm (4 in) of gravel were mixed in during re-compactions. Cuts were made to drain water from low areas. No shrub-clearing was required along this 300-m section of trail.

An additional 250 m (812 ft) of trail was repaired by removing the 15 cm (6 in) of topsoil and 15 cm (6 in) of subsoil and compacting and filling with rock (30 cm or 12 in). Topsoil was replaced over the rock, and the area was seeded. Cuts were made along the trail to drain water from low areas. Shrubs and trees were cleared to a 2 m width (6.5 ft) on each side of the trail.

Left: **Before**
***Middle and right*:**
Trail TA3, during

Boeblingen LTA - Training Area 9 Trail Repair

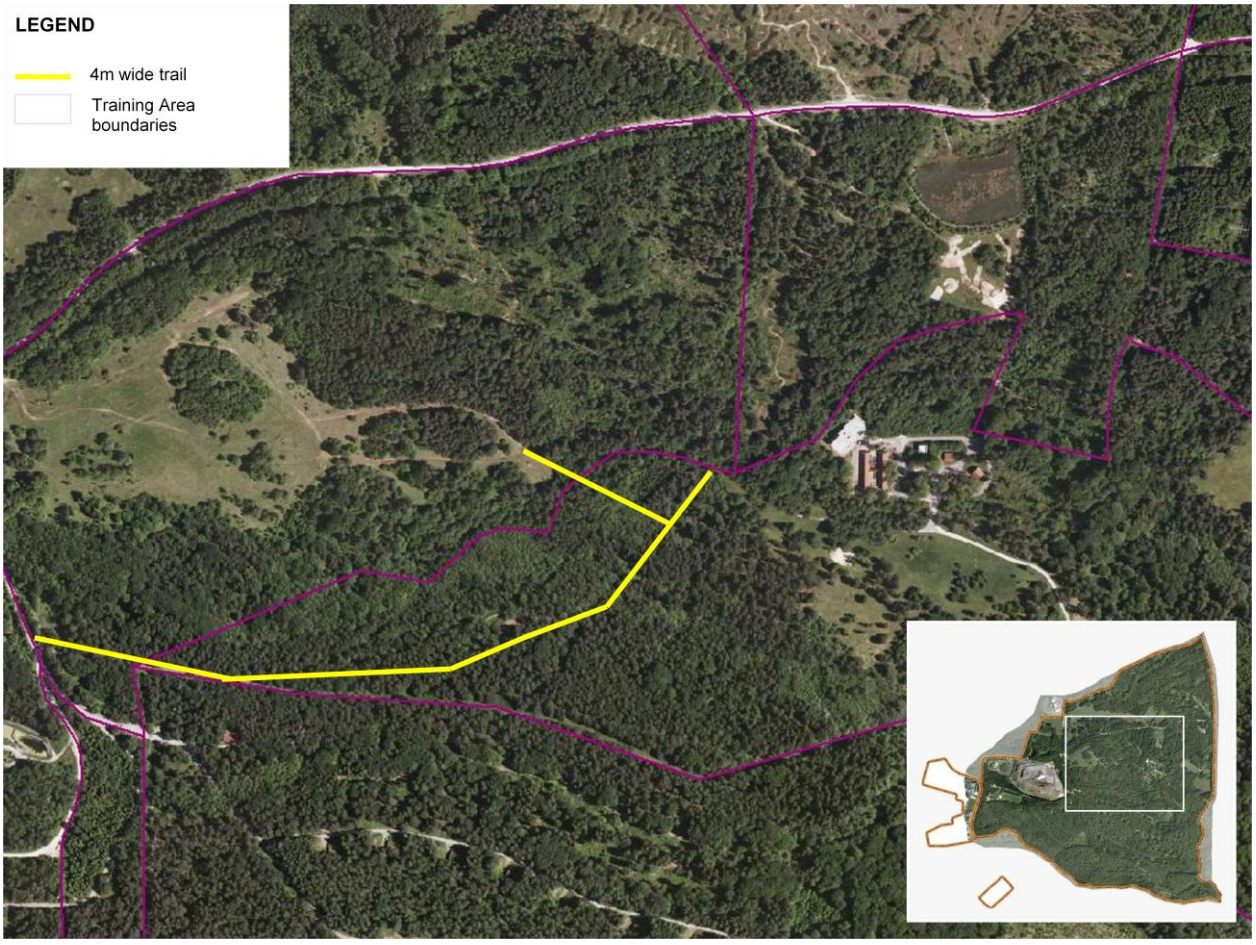


Figure 7 – Project location, Boeblingen LTA.

Purpose

The purpose of this project is to support the JMTC training mission by repairing and upgrading trail structure and drainage features along approximately 1000 meters (0.6 mi) of Trail 9 West. This trail connects the MOUT Site and the western portion of the LTA (TA 9 and 7N).

Benefit to Training

Boeblingen LTA is a training resource required for preparing military personnel and units for deployments. Proper maintenance and repair of the LTA is essential for ensuring that JMTC units remain proficient at performing their mission-essential tasks. Failure to sufficiently maintain this site and its ancillary infrastructure would reduce mission readiness. Without this project, there would be no usable trail to allow a western approach to the MOUT Site and no trail to link Training Area 7N and 9. This improved access will allow for greater training capabilities and decreases traffic and wear and tear on other trails in the LTA.

Methods, Details, and Measures of Success

Table 5 - Details for Training Area 9 Trail repair.

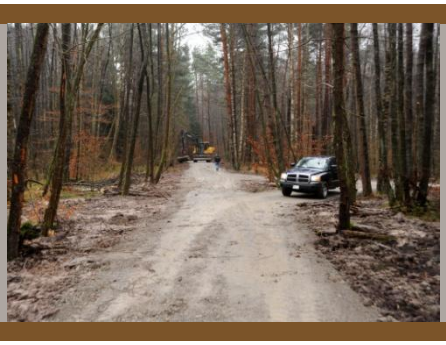
FY09 LRAM – Training Area 9 Trail Repair - W912GB-09-D-0055-0009		
Task	**Task Description**	**Status**
1	Develop work plan and schedule	Ongoing – 70% complete
2	Repair Trail 9 West	Ongoing – 70% complete
2a.	Option 1 to Task 2 Re-gravel approximately 100 meters (325 ft) of existing trail at the tie-in point.	Ongoing – 70% complete
3	Completion report	

Out of approximately 1000 m (0.6 mi) of Trail 9 West, 600 m (0.37 mi) of existing gravel trail was repaired by improving the crown and adding drainage on one side. Toward the end of this 600 m, where there was an existing culvert and marshy area (approximately 50 m^2), riprap stones (Wasserbausteine) were installed in the marshy area to allow for vehicle (≤ 5 ton) crossing.

The remaining 400 meters (0.25 mi), a Y-shape, was either improved or had new trail developed. The left fork of the Y (approximately 100 m or 325 ft) required only a layer of light gravel and no drainage; the right fork of the trail (approximately 300 m or 975 ft) required new, gravelled construction with simple drainage. The goal was to cut a trail that had the least amount of slope. At the end of this 400 m, the new trail ties into a formerly existing trail. Removal of trees was coordinated with DPW and Forestry, and the trees were removed by Forestry.

All trail and drainage features were designed, constructed, repaired, and/or upgraded to endure for a minimum of five years without needing significant repair or modification, based upon historical precipitation levels. Drainage ditches were designed and constructed to facilitate the rapid removal of precipitation from the trail. The trail is required to withstand use by 5-ton, High-Mobility Multipurpose Wheeled Vehicles (HMMWVs).

Left: **Area 9 trail, before.**
Middle and right: **Area 9 trail, during.**



FY09 Project Reviews
RTSC Schweinfurt

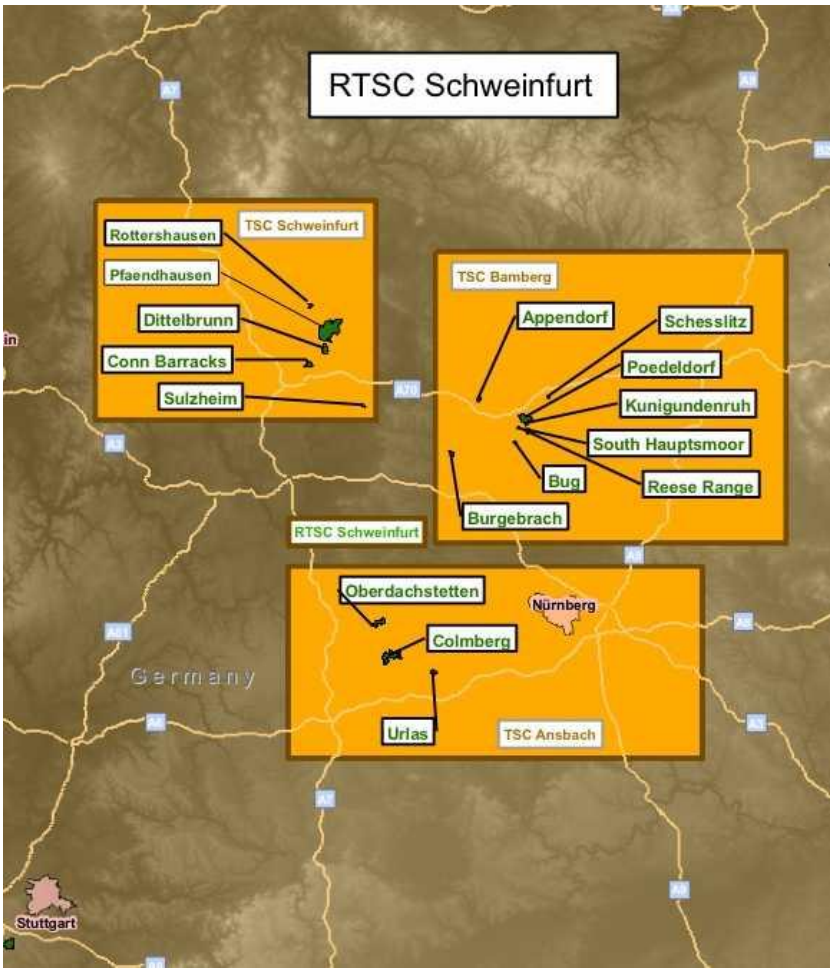


Figure 8 - RTSC Schweinfurt training areas.

The training areas contained within RTSC Schweinfurt are described below.

TSC (USAG) Schweinfurt is located in Bavaria in the Region of Unterfranken (Lower Frankonia). It comprises 6,702 ac (2,712 ha), within four classified training areas. There are also training facilities at the cantonment area of Conn Barracks. Training assets include: nine small arms ranges, a TCPC/BCPC, an NBC Chamber, a rappel tower, an Expert Infantryman Badge and common task testing training area, and a Demo Area. Training assets at USAG Schweinfurt provide important firing range capabilities in USAREUR and contain limited heavy and light maneuver training areas that are used by tenant and non-tenant U.S. forces in Europe. The Bundeswehr, also, occasionally

uses the training facilities for their reserve components.

TSC (USAG) Bamberg is located in Northern Bavaria (56 km or 34 mi north of Nürnberg and 81 km or 41 mi east of Würzburg) in Upper Franconia. Two training areas comprise 2,556 ac (1,034 ha). Training facilities and activities include: tank training area, MOUT site, rifle ranges, and tank-scaled range. Specific mission objectives include: facilitate common soldier task testing including land navigation training, perimeter setup, and drivers training; provide Preliminary Marksmanship Instruction (PMI); marksmanship training using Engagement Skills Trainer (EST) systems and TADS; support company level tactical training for field artillery, engineer, infantry, and Combat Support/Combat Service Support units with Multiple Integrated Laser Engagement System (MILES); provide additional training support to all units in the USAREUR footprint through MOUT; checkpoint/roadblock and refuelling operations; provide facilities to engineers for mine laying and other counter mobility operations and breaching; digging with Armored Combat Earthmovers (ACEs) and Small Equipment Excavators (SEEs); enhance host-nation attitudes and cooperation; and limit negative impact on the installation and German community environments.

TSC (USAG) Ansbach is located approximately 24 miles (40 km) southwest of Nürnberg in the northern part of Bavaria. Two training areas comprise 1,180 ac (488.5 ha). Training activities and facilities include: platoon and company maneuver training; tracked and wheeled maneuver training; air assault operations; a MOUT site, and a TCPC/BCPC. Mission objectives that are supported at USAG Ansbach include: facilitate common soldier task testing, including land navigation training, perimeter setup, and drivers training; marksmanship training using Engagement Skills Trainer (EST) systems and TADS; support company level dismounted training, command field exercises, and tactical drivers training; maintain NBC chambers for individual NBC training and familiarization; provide additional training support through MOUT; enhance host-nation attitudes and cooperation; and limit negative impact on the installation and German community environments.

Above: *An eight-soldier team from the 44th Expeditionary Signal Battalion sets out for their first objective on the Situational Training Exercise lanes. Photo courtesy: www.army.mil and Mark Heeter*

FY09 RTSC Schweinfurt ITAM Program Goals

Goal 1. Maximize training land sustainability by maintaining the quality of the training land and opening up more usable space for training.

- Aggressively seek and obligate funds for projects as funds become available, and execute as soon as weather or other conditions permit.
- Review, update, and publish ITAM Five Year plan.
- Continually conduct assessments of training requirements and training land capabilities.

Goal 2. Provide quality information.

Goal 3. Increase SRA Outreach and Inreach.

The primary goal of the ITAM program is to maintain the training environment in a 100%-readiness condition. To meet this goal, the ITAM work plan was prepared in such a way that available funds can be executed throughout the year, with the entire work plan being funded.

FY09 RTSC Schweinfurt ITAM Program Accomplishments

There were no TRI, SRA, GIS, or RTLA projects for RTSC Schweinfurt in FY09.

LRAM

The predominant training land problems encountered within RTSC Schweinfurt relate to poor drainage and subsequent erosion and site damage. Other issues arise from a lack of maneuver space and an insufficient road and trail network. To help correct these issues, projects in FY09 accomplished the following:

- Managed storm-water drainage and controlled erosion.
- Alleviated saturated soil conditions by improving drainage.
- Repaired trail damage and hardened trail surfaces.
- Re-established trails to open up maneuver space and improve links to and between specialized training facilities.

FY09 LRAM Objectives

- Provide preventive and corrective land rehabilitation and maintenance measures;
- Track progress of projects; and
- Recommend future improvements to maintain integrity of training resources.

FY09 LRAM Measures of Effectiveness

Each of the projects covered in the following section is intended to fulfill one or more of the following:

- Sustain long-term training lands held under the stewardship of the U.S. Army.
- Sustain the overall condition of installation lands to ensure long-term military viability of its installations.
- Increase mobility, access, and availability within and between training areas.

Above: *500th Engineer Horizontal Company works on a project to improve Area Mike near Schweinfurt, Germany. Photo courtesy: www.army.mil and 15th Engineer Battalion*

FY09 LRAM – TSC Ansbach – WO # TRO-00017-8P

Oberdachstetten LTA - Repair Trail at Oberdachstetten

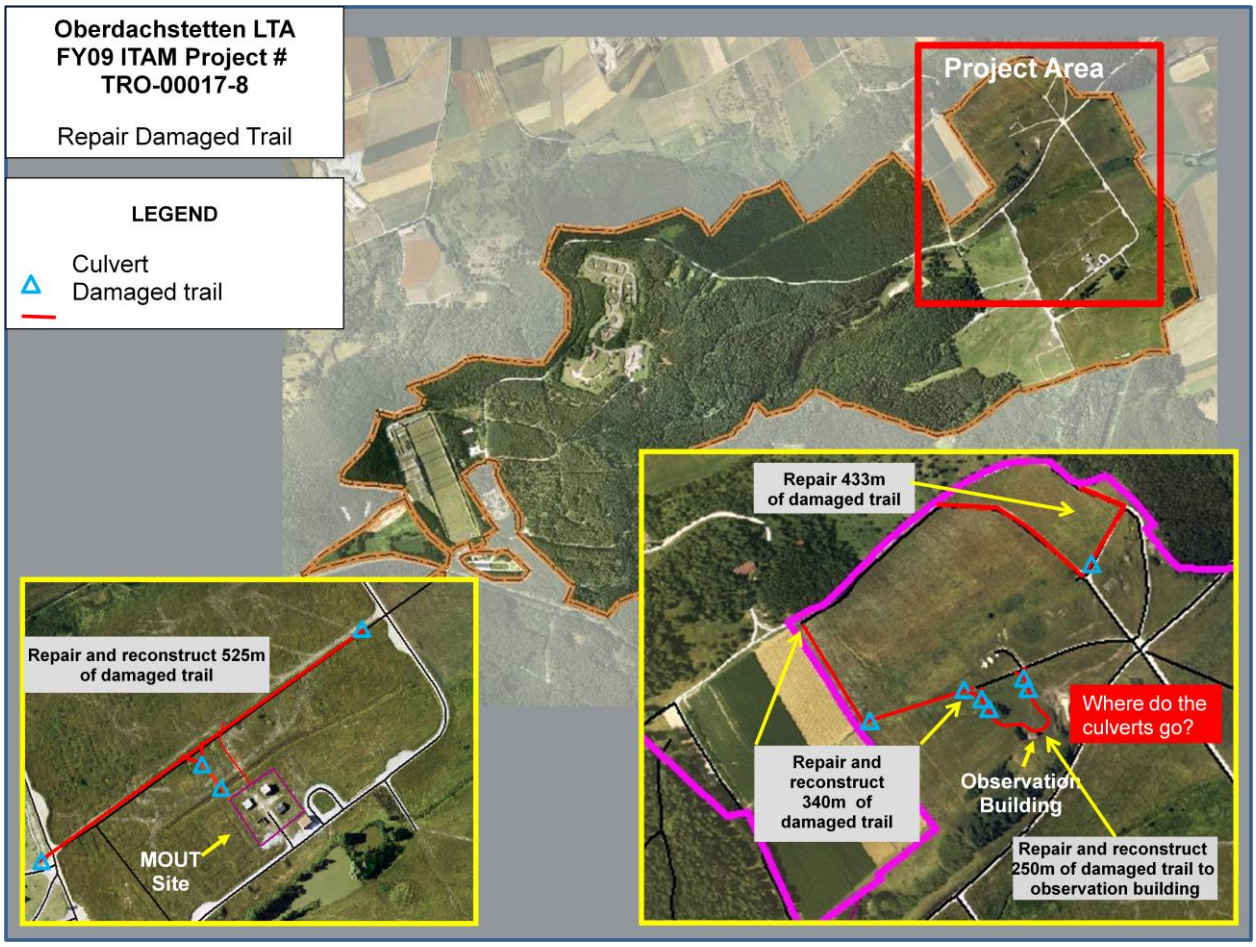


Figure 9 – Project location, Oberdachstetten LTA.

Purpose

The purpose of this project was to repair 1821 meters (approximately one mile) of maneuver trail at the Oberdachstetten LTA to improve access to Areas G and H for convoy operations and other training scenarios.

Benefit to Training

This trail had been damaged from tactical vehicle maneuvers and field training exercises and was impassable for tactical vehicles. It required raising to its original level by installing gravel and crushed rock on the surface to facilitate drainage.

Without the maneuver trail repairs, the trail would continue to deteriorate, increasing future cost of repairs. It would also hinder commanders' options for conducting convoy operations and many other types of training scenarios.

Repairing this trail allows access into Areas G and H. As the primary access route from the main tank trail, it allows maneuver through training areas that are used to promote and improve capabilities for performing convoy training in preparation for war.

Methods, Details, and Measures of Success

Table 6 - Details for Oberdachstetten Trail repair.

FY09 LRAM – Repair Trail at Oberdachstetten - WO # TRO-00017-8P		
Task	**Task Description**	**Status**
1	Work plan	
2	Mobilization	
3	Repair Trail Area H – Repair or reconstruct approximately 525 meters (0.3 mi) of trail. Culverts were installed at the two trail access points along the perimeter road. Two culverts were installed in the drainage swale where the trail crosses into the MOUT site.	Complete.
4	Repair Trail MOUT Site – Repair or reconstruct approximately 220 meters (0.14 mi) of trail. Three culverts were installed where the trail crosses the drainage swale that runs through the site.	Complete.
5	Repair Trail to Observation Building at Area G – Repair or reconstruct approximately 250 meters (0.15 mi) of trail. Culverts were installed at the two trail access points along the perimeter road. These culverts had to accommodate a larger turning area and are larger than normal at 1.2 m (4 ft) wide and 15 m (50 ft) long (Grid# PV-0342-7747). Parking was created along the trail and in the area adjacent to the observation building to accommodate five vehicles (assuming each vehicle is 2.5 meters (8 ft) wide by 8 meters (26 ft) long).	Complete.
6	Repair Trail Area G – Repair or reconstruct approximately 340 meters (0.2 mi) of trail. Two culverts were installed at trail crossings for this segment.	Complete.
7	Repair Trail Area G – Repair or reconstruct approximately 433 meters (0.27 mi) of trail. One culvert was installed at a trail crossing for this segment.	Complete.
	Completion Report	

To repair each of the trail segments, top soil was removed and stored, and vegetation was mowed or trimmed where appropriate. Where necessary, permission was requested from the Host Nation government to remove trees.

As required, loose (de-compacted) or unsuitable materials were removed in order to create a stable subsurface upon which to construct a trail. On this subsurface, a trail capable of withstanding the daily traffic of large military vehicles was built.

Gravel is the preferred material for trail construction and was used where permitted. Where gravel was not permitted, soil with an appropriate consistency to ensure it can withstand the anticipated traffic was used. The materials used to construct the trail were compacted. The trails are 3.5 m (11 ft) wide and can accommodate a 5-ton truck.

Areas at the ends of the culverts were lined with rocks to prevent erosion and undercutting.

Trail access points were constructed using coarse stones as surfacing. The purpose of the coarse stone entrances is to discourage access by privately-owned vehicles.

Area H (behind MOUT site) – repair of 525 m trail

Left: Before.
Right: After.

MOUT site drainage and trail repairs

Left: Before.
Middle and right: After.

Area G, north side - Repair and reconfiguration of 250 m of trail.

Left: Before.
Right: After.

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FY09 LRAM – TSC Ansbach - WO # TRO-00036-8P

Oberdachstetten LTA - Storm Drainage Channels/ Retention Basins

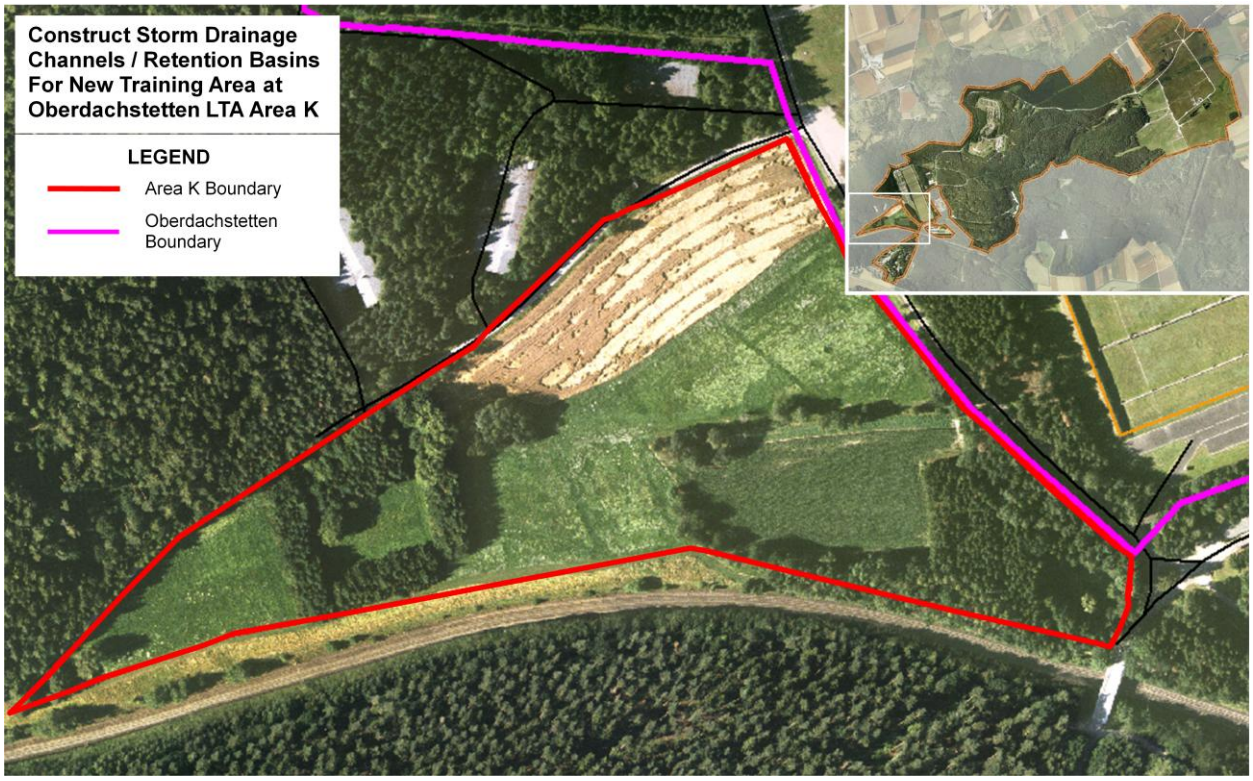


Figure 10 – Project location, Oberdachstetten LTA.

Purpose

The purpose of this project was to repair or install new storm drainage channels and retention basins. These control erosion by channelling and collecting runoff and preventing the road and trail surfaces from being washed away. Thus, the roads and trails are maintained in a safer condition, allowing units to access the entire training area K for more effective training for deployments.

Benefit to Training

Without repair, erosion would continue, the surface of the training area would be washed away by run-off, and sediment would accumulate at the bottom of the training area. Traction between vehicle tires and the road surface under such conditions is low because of the loose and wet surface. This is a safety hazard for vehicles driving in the training area, as wheel spin occurs.

With this project, the Oberdachstetten training area is enhanced, and units are able to access the entire training area K. This improves and increases the number of unit training scenarios and allows for safer training events, such as Warrior tasks required for deployment.

Methods, Details, and Measures of Success

Table 7 - Details for repair of storm drainage channels and retention basins.

FY09 LRAM – Storm Drainage Channels/ Retention Basins - WO # TRO-00036-8P		
Task	**Task Description**	**Status**
1	Site clearing along route of existing and new ditch	Complete.
2	Reconstruct existing ditches	Complete.
3	Excavate and install new ditches	Complete.
4	Excavate and install three new retention /seepage basins upstream of pond	Complete.
5	Excavate and install concrete culverts (size DN 350).	Complete.
6	Excavate and install parking lot of crushed stone base and surface.	Complete.
7	Landscaping	Complete.

Two new retention ponds were constructed, and 731 m (2375 ft) of ditches and three culverts were installed to increase the surface water drainage to the two new ponds. From there, the water overflows into the pre-existing retention pond.

The new basins were installed upstream of the pre-existing pond to allow for more effective site drainage, and they allow seepage of a substantial quantity of accumulating storm water. The shoulder and base of the basins were not sealed but were built up to enhance infiltration into the soil. The new ponds were designed so their total capacity matches that of the existing retention pond. This reduces the quantity of excess storm water that must be fed into the existing rainwater retention pond at peak time.

Hydraulic computation by the contractor was necessary for proper sizing of the basins. Also minor geological investigation (infiltration test) was required to determine the type of underlying subsoil and the possibility for and the rate of water infiltration into the soil. Ground water level in the area was also determined.

A new open drainage ditch was installed along the road at the east side of the new site, starting from the end of the existing culvert at the road intersection near the range entrance gate. Storm water from this ditch discharges into the new basins. A minimum distance of 2.5 m was maintained between the existing trees along the road and the new ditch. Care was taken to not damage the trees. Other ditches installed across the new site at the depression line adjoin to this main ditch, flowing in the direction of the retention pond.

Assembly Area K was constructed of 10 cm (4 in) of gravel, size up to 32 mm, at the surface; a middle layer of 10 cm (4 in) of crushed rock, size 2-56 mm; and a substructure of 10 cm (4 in) crushed rock, size 82-120 mm. The use of gravel helps avoid surface water drainage problems.

Left: Before.
Middle: After, front entrance.
Right: After, rear exit.



Left: NW drainage to Basin 1 (in rear of photo).
Middle: Basin 1.
Right: SE drainage repair, leading to Basin 1 on far end.



Pfaendhausen LTA - Repair Dirt Trail Area North LTA Pfaendhausen

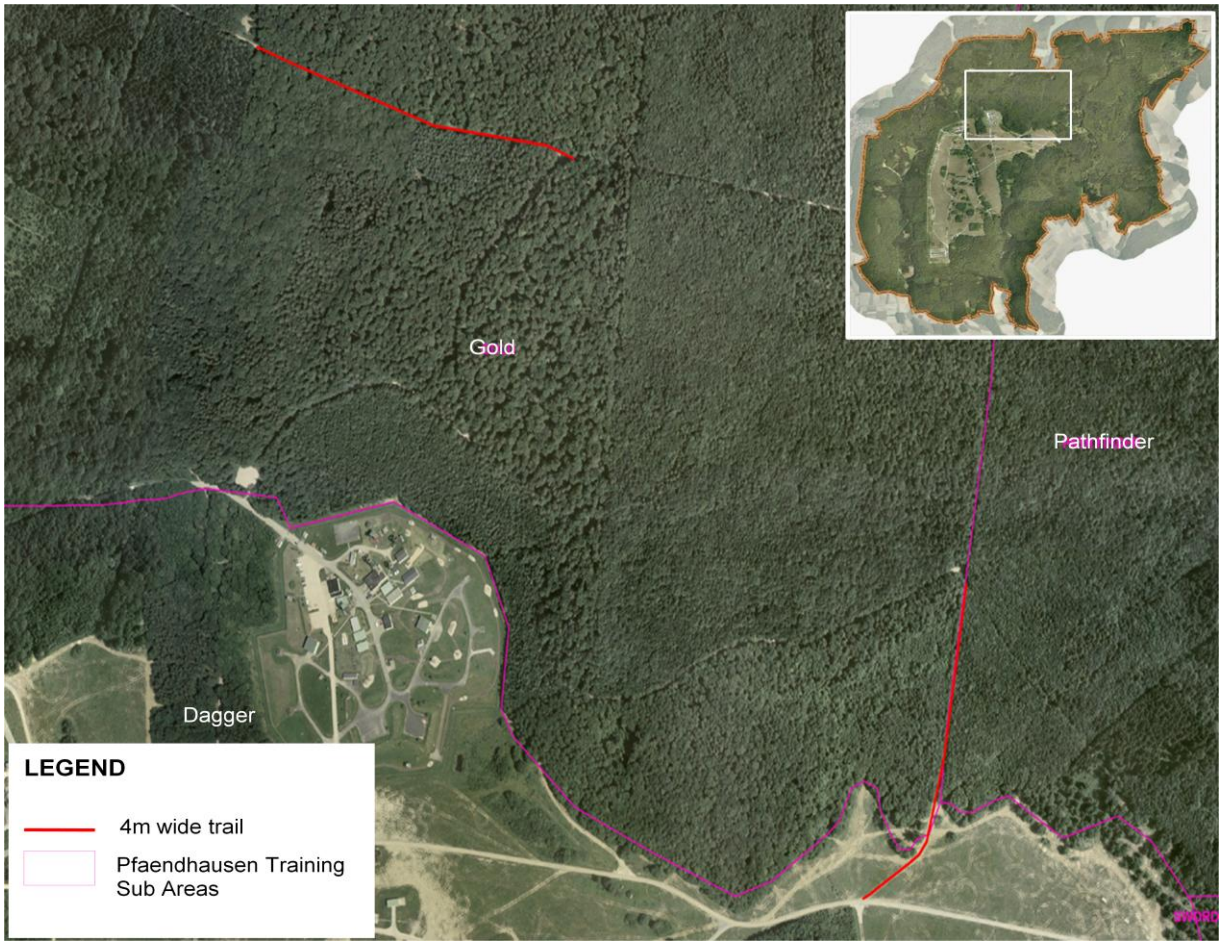


Figure 11 – Project location, Pfaendhausen LTA.

Purpose

The purpose of this project was to repair maneuver damage from M1 tanks and other heavy vehicle usage on two trail segments, one located within the Area Gold trail network (429 m or 0.26 mi) and another in Pathfinder, which provides access to the Land Navigation Course (480 m or 0.3 mi). These sections of trail are situated in forested areas that lack direct sunlight; thus the trail surface can not dry sufficiently without the aid of improved drainage.

Benefit to Training

Without these repairs, limitations would have been placed on unit training scenarios, and the trail would have to have been abandoned for training. This is particularly true for units no longer using M1 tanks and other such heavy tracked vehicles.

Improving this trail allows units to use the entire road network, including the section providing access to the Land Navigation Course (Pathfinder) that was formerly impassable. The south-eastern section of trail also provides access to the open maneuver space in Area Dagger, from the forested Area Gold.

Methods, Details, and Measures of Success

Table 8 - Details for North LTA Pfaendhausen dirt trail repair.

FY09 LRAM – Repair Dirt Trail Area North LTA Pfaendhausen - WO # TL-00028-6P, WO# TL-00026-6P		
Task	**Location and Description**	**Status**
	Repair and re-profile trail surface. Level, fill with crushed rock ,and establish a profiled crown.	90% complete
	Excavate drainage channels on both sides to facilitate run-off. Install rock lining (1 m diameter) where channels meet storm drains at major junctions to preclude erosion. Create outlet points along the drainage ditches to allow runoff to infiltrate into the adjacent soils.	90% complete
	Cut back brush and vegetation as required.	90% complete

The trail was repaired, and crowned drainage ditches were installed on both sides of the 480 m section of trail to facilitate water runoff and improve drainage. This water now flows to the water retention pond in Area Mike. A dirt pile at the intersection must still be removed, and the drainage ditch slope is too steep.

[Phase 2 of this project is the 429 m of trail in area Gold. Once funding is received, this trail repair can begin. The south-eastern section of the trail in area Gold also provides access to the open maneuver space and links into the Home Station IED Lane (divided highway). Phase 2 is scheduled to be funded in FY11.]

***Left*: Before.**
***Center*: Before.**
***Right*: Before.**

***Left*: After.**
***Right*: After.**

FY09 LRAM – TSC Schweinfurt – WO# TL-00030-8P

Pfaendhausen LTA - Repair Dirt Trail at Mobile MOUT Site

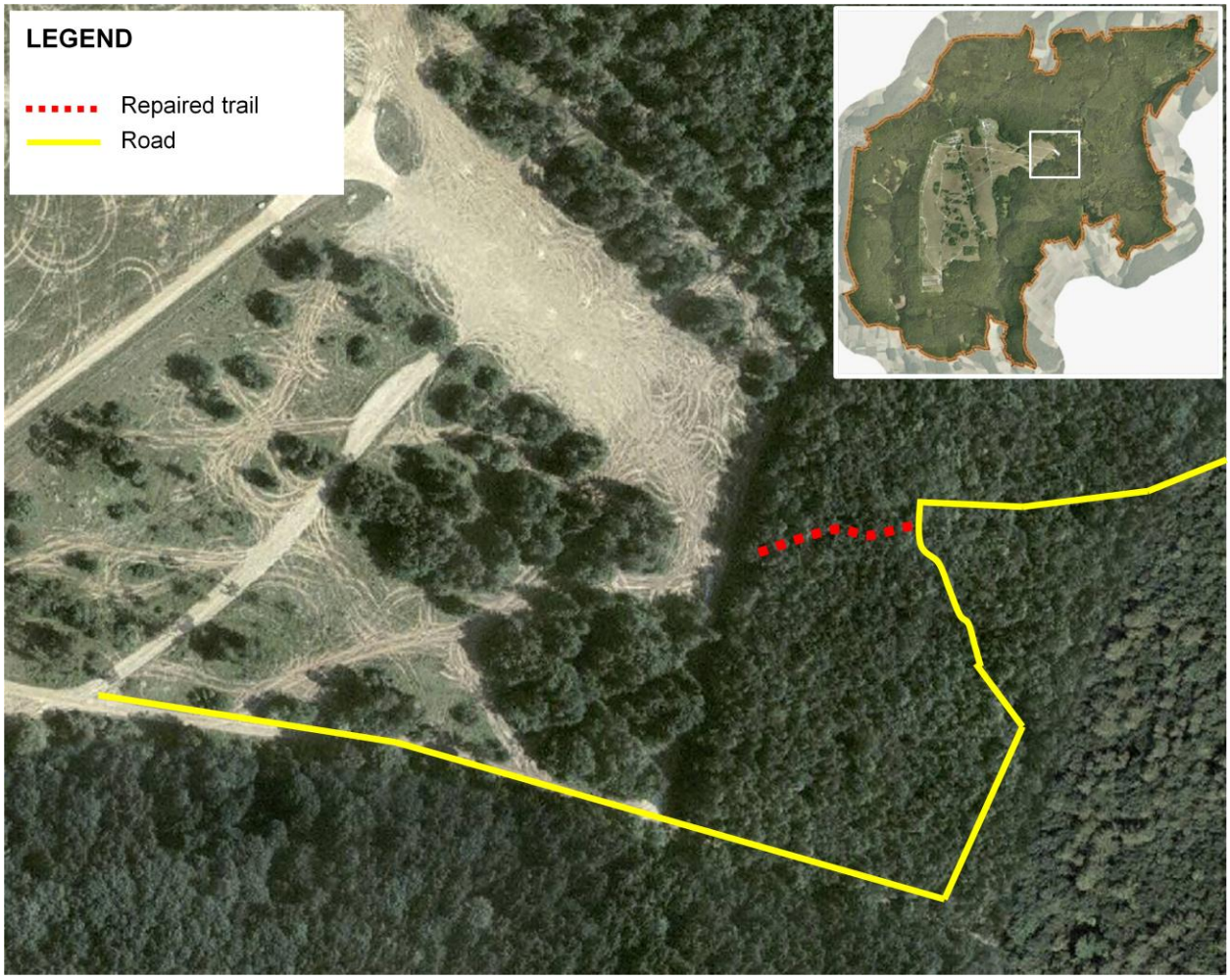


Figure 12 **–** Project location, Pfaendhausen LTA.

Purpose

The purpose of this project is to repair the existing dirt trail at the Mobile MOUT Site (approximate length, 100 m or 325 ft). This trail has sustained damage in the form of large waterlogged hollows from M1 tanks and other heavy vehicle usage. Because it is located in a forested area that lacks adequate direct sunlight to dry out the trail surface, it also requires improved drainage measures.

Benefit to Training

Improving this trail will allow units to use the entire road network around the Mobile MOUT Site. If units do not have this access, possible tactical training scenarios would be adversely affected in this area.

Without these repairs, this trail will remain largely impassable. Improving this trail allows units to use the entire road network around the Mobile MOUT Site.

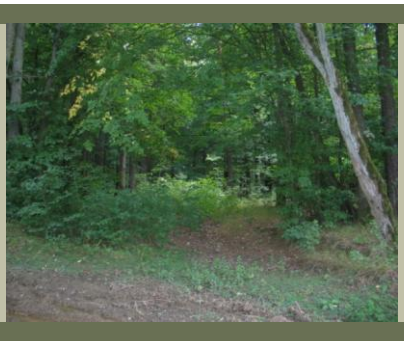
Methods, Details, and Measures of Success

Table 9 - Details for Mobile MOUT Site dirt trail repair.

FY09 LRAM – Repair Dirt Trail at Mobile MOUT Site - WO# TL-00030-8P		
Task	**Task Description**	**Status**
	Repair trail. Level, excavate mud, fill with crushed rock, and establish a profiled crown.	On hold due to snow.
	Construct shoulders and seed.	
	Install drainage ditches along both sides.	

After receiving the go-ahead from DPW, the missing gravel layer will be put in by 500th EN in the spring/summer 2011.

***Left*: Before.**
***Middle*: Before.**
***Right*: With troop construction, during.**



Poedeldorf LTA - Repair Maneuver Trail

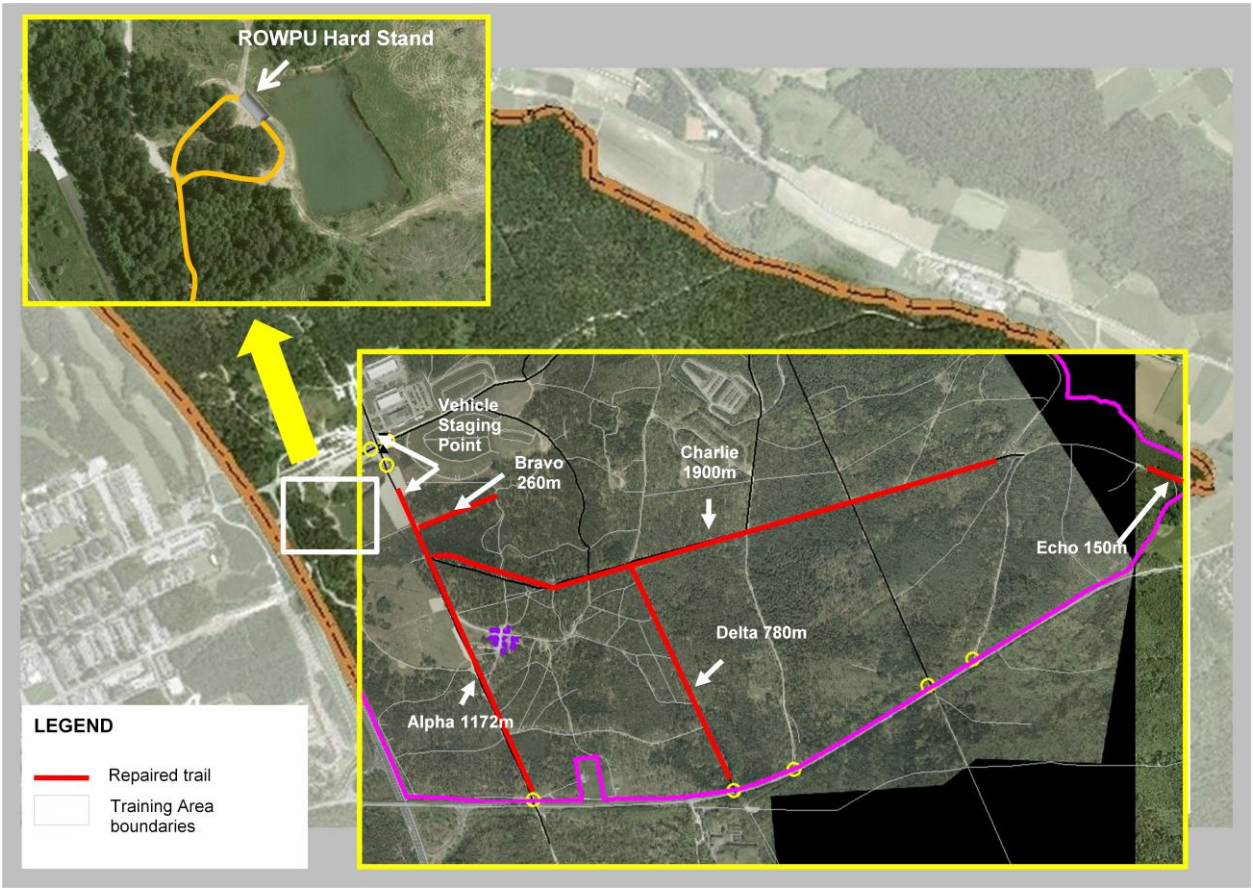


Figure 13 – Project location, Poedeldorf LTA.

Purpose

The purpose of this project was to repair the maneuver trail on Poedeldorf LTA in order to maintain quality training.

Benefit to Training

This is a heavily–used area and must be maintained to support meaningful training. If this project were not completed, the area would continue to degrade, increasing future repair costs. Localized road flooding would continue to hamper training.

Completing this project ensures that the maneuver trail is in good condition to be able to support quality training on Poedeldorf LTA.

Methods, Details, and Measures of Success

When there is heavy rainfall, the trail on the west side of Poedeldorf LTA becomes flooded on either side, and the trail itself becomes waterlogged, because of a lack of drainage ditches. In this project, the trail was repaired and ditches were added to alleviate this problem.

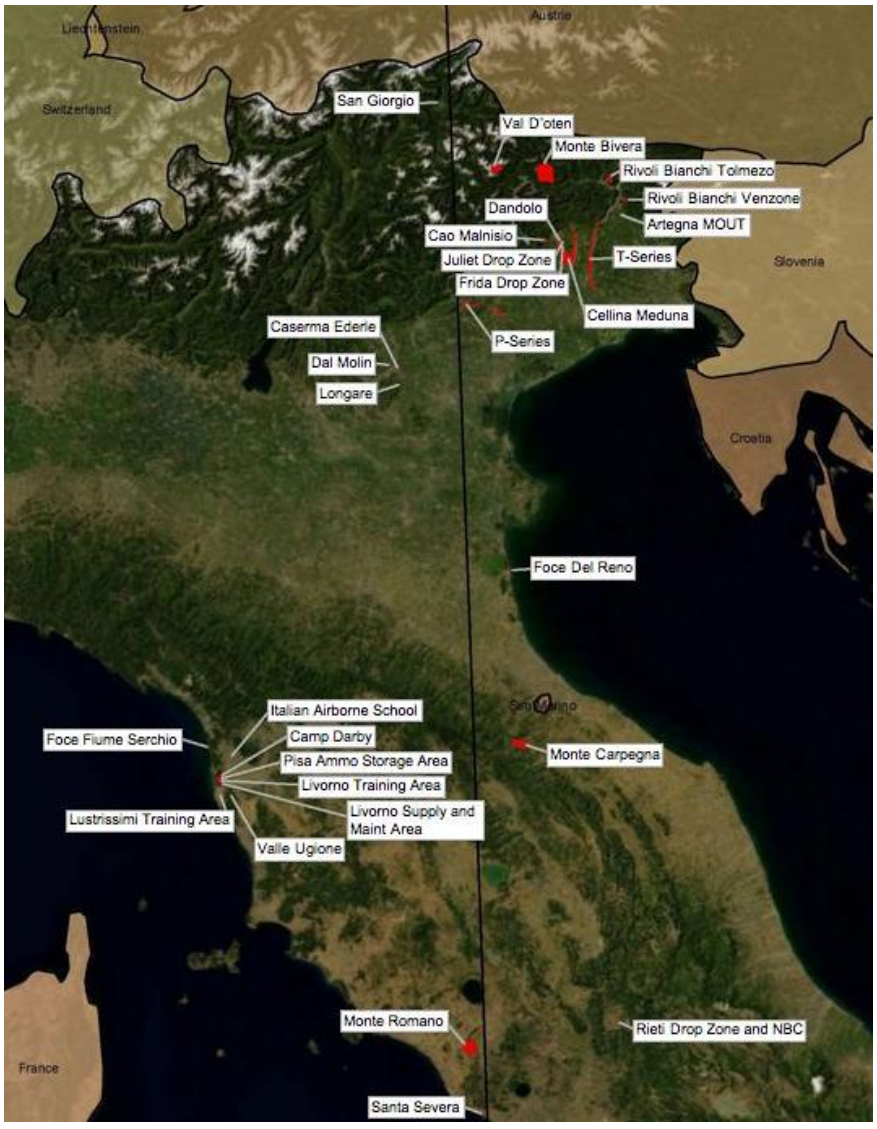
Table 10 - Details for Poedeldorf LTA maneuver trail repair.

FY09 LRAM – Repair Maneuver Trail - WO # IG8-00028-9		
Task	**Task Description**	**Status**
	Trail network graded to allow for drainage.	Complete
	Roads upgraded using crushed rock; profiled crown surface constructed	Complete
	Reverse Osmosis Water Purification Unit (ROWPU) pad in area 2C upgraded using crushed rock.	Complete
	Existing drainage channel excavated using trenching machine. Trench lined with rock,	Complete

***Left*: Before.**
***Right*: Before.**

***Left*: During construction.**
***Right*: After project completion.**

FY09 Project Reviews RTSC Italy



The RTSC Italy training areas that have projects included in this report are: Cao Malnisio with a Land Rehabilitation and Maintenance project and several locations with acquisition of aerial imagery: Cao Malnisio, Juliet and Frida Drop Zones, Dandolo, Cellina Meduna, San Giorgio, T-Series, P-Series, Artegna, Val d'Oten, Caserma Edele, Rivoli Bianchi Venzone, Nella DZ, NBC TA, and Rieti DZ.

FY09 RTSC Italy ITAM Program Goals

Goal 1. Review, update and publish ITAM Five Year Plan.

With regards to the production of an ITAM plan, one of the limiting factors that faces ITAM projects in Italy is that the training areas belong to the Italian Army, and the U.S. military are guests at the training venues. All construction and maintenance of the Italian ranges by the U.S. Forces must meet strict conditions reviewed by the Italian government in Rome. As training areas are examined, RTSC Italy reviews the training opportunity that the range offers the U.S. Soldiers, what is needed to bring the resource to U.S. Training Standards, and how can we minimize the impact on the environment.

The important resources at Cao Malnisio have been reviewed, and two construction projects are in place to improve the training resources at this location. By tapping the Corps of Engineers' and ITAM's joint expertise, construction projects that meet all the environmental requirements of the Italian government have been developed. The restoration of the training trail is a good example. Also, with assistance from ITAM experts and the Corps of Engineers, a maintenance program has been developed to include preventative steps for this range facility. This program will result in long-term sustainability of the training area.

For FY 09 through FY 11, GIS overflights have been requested, to improve the GIS mapping products available to the units in Italy. In FY11, RTSC Italy has requested that Monte Carpegna Maneuver Trail be renovated and also, in FY11, that an annual maneuver trail maintenance program be activated.

Goal 2. Provide quality information.

To ensure the units have the most up-to-date GIS products, RTSC Italy has set up a tracking system of all the ranges in Italy. This system includes an historical tracker to show when GIS products were last produced, and the system will show information on how the area has or has not changed from the last GIS product. Within this initiative in FY09, RTSC Italy defined 12 training sites that were in dire need of new GIS products, aerial imagery, updated materials, and mapping products. The overflights in FY09 and FY10 will bring RTSC Italy to the 90% required resource level to meet the command needs. This information is disseminated to the tactical unit Commanders through command representatives at training meetings and informational briefs and by the TSC.

The primary goal of the ITAM program is to maintain the training environment in a 100%-readiness condition. To meet this goal, the ITAM work plan was prepared in such a way that available funds can be executed throughout the year, with the entire work plan being funded.

FY09 RTSC Italy ITAM Program Accomplishments

There were no TRI, SRA, or RTLA projects for RTSC Italy in FY09.

GIS

The predominant problem encountered within RTSC Italy in FY09 was that a large percentage of the Italy training areas are not covered by GIS products.

FY09 RTSC Italy GIS Objectives

- Create and stock up-to-date aerial imagery, GIS maps, MIMs, Soldier Field Cards, and ensure there is up-to-date data on the Army Mapper.
- Provide up-to-date information on the ITAM viewer for the command to use in analyzing which training areas are best suited to which training tasks.
- Provide up-to-date map products for use by the command for proper execution of training in Italy.

FY09 RTSC Italy GIS Measure of Effectiveness

Provide military trainers and land managers with the necessary technical and analytical information to make good decisions.

LRAM

Cao Malnisio experienced major degradation and erosion after building a maneuver trail in the training range. This is being corrected by focusing on reconstruction and erosion control in the area.

FY09 RTSC Italy LRAM Objectives

- Provide preventive and corrective land rehabilitation and maintenance measures;
- Track progress of projects; and
- Recommend future improvements to maintain integrity of training resources.

FY09 RTSC Italy LRAM Measures of Effectiveness

The projects covered in the following section are intended to fulfill the following:

- Sustain long-term training lands held under the stewardship of the U.S. Army.
- Sustain the overall condition of installation lands to ensure long-term military viability of its installations.

FY09 GIS - RTSC Italy

Various locations (RTSC Italy) - Aerial Imagery

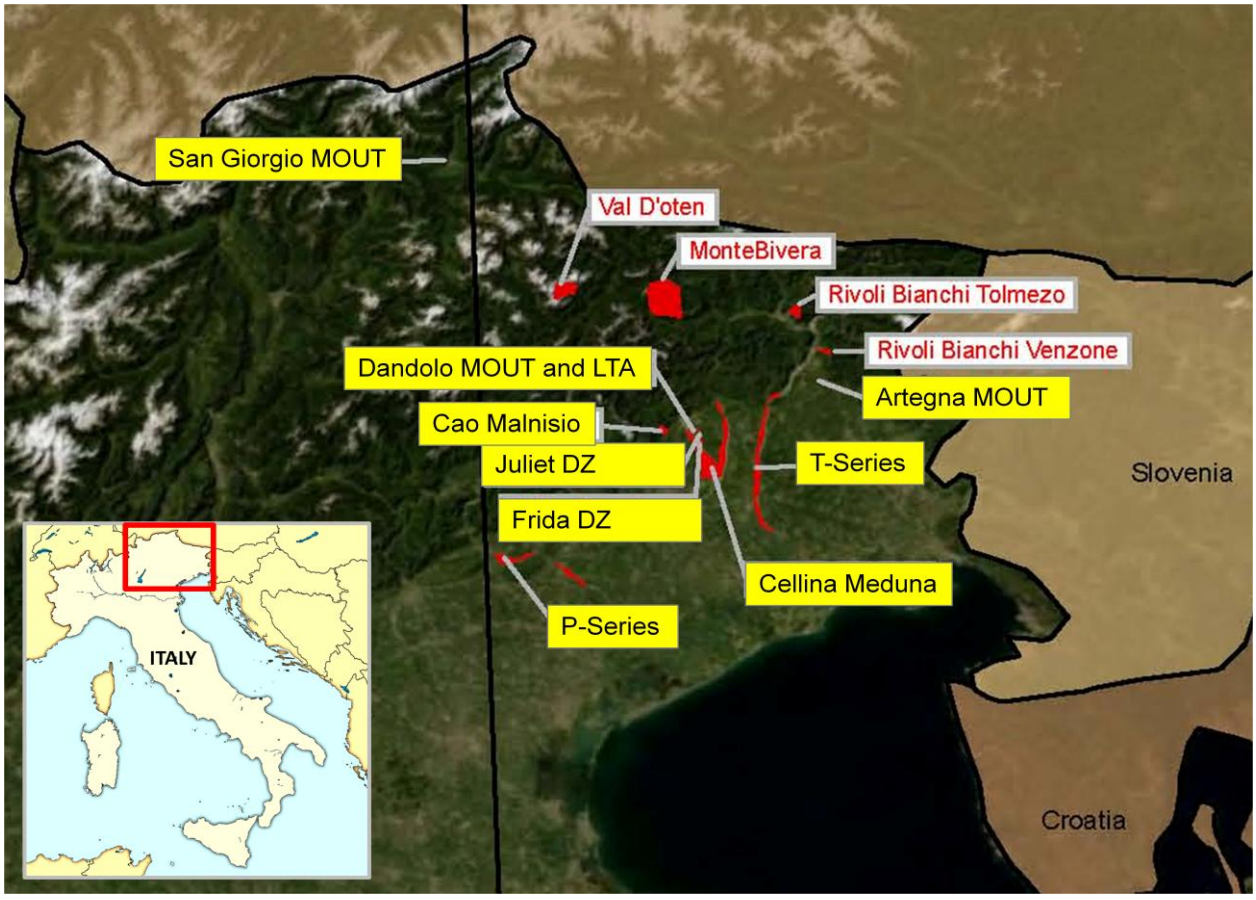


Figure 15 - FY09 Italy aerial imagery locations (in yellow boxes).

Purpose

The purpose of this project is to provide quarter-meter true-color orthoimagery for the following training areas as prioritized by RTSC and SETAF G3: Cao Malnisio, Juliet/Frida DZ, Dandolo MOUT and LTA, Cellina Meduna, San Giorgio MOUT, T-series, P-Series, and Artegna MOUT.

Benefit to Training

Minimal GIS baseline data exists for the Italian TAs and ranges used by SETAF/173d. Without the zero layer produced in this project, a further GIS data build would be extremely costly and would jeopardize the planning of critical land repair projects.

Cao Malnisio LTA - Cao Malnisio Maneuver Trail Renovation

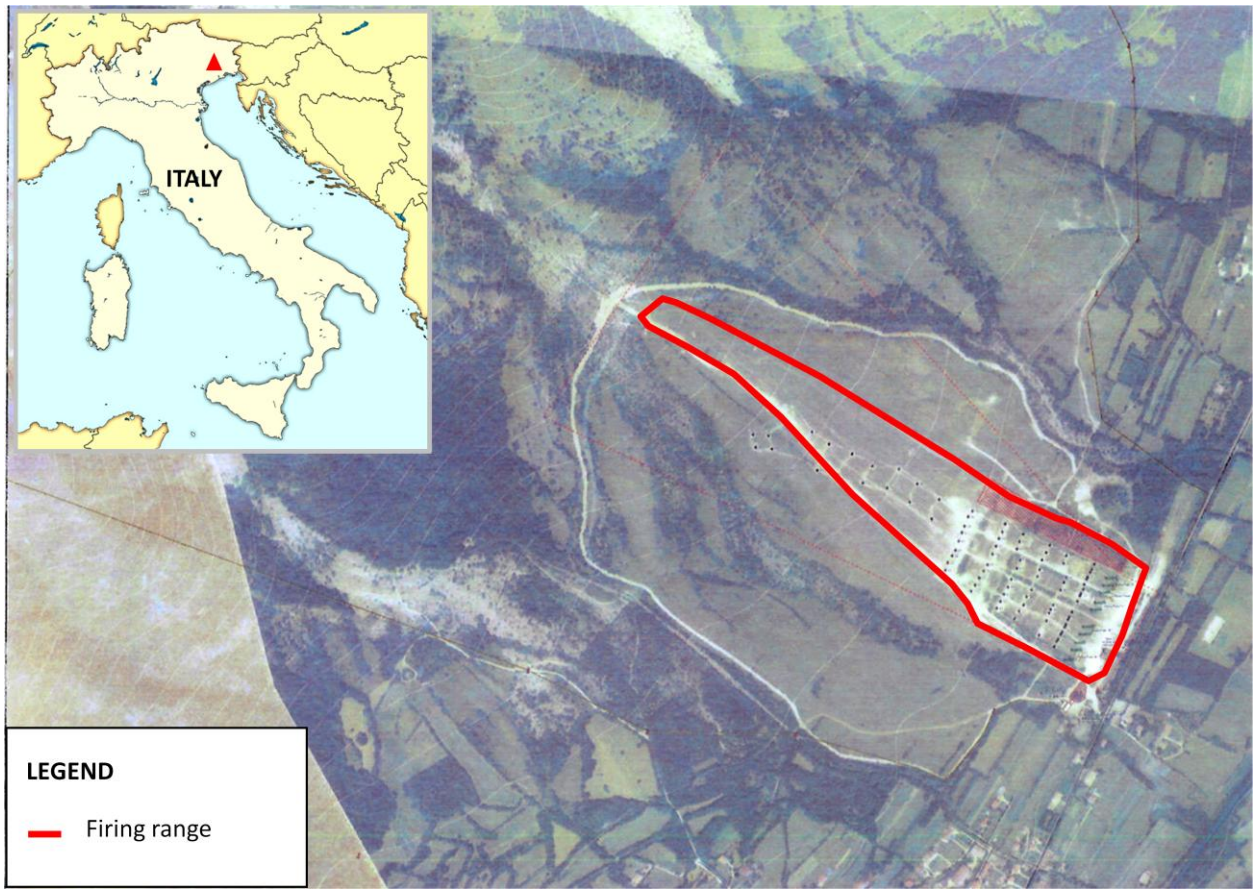


Figure 16 – Project location, Cao Malnisio

Purpose

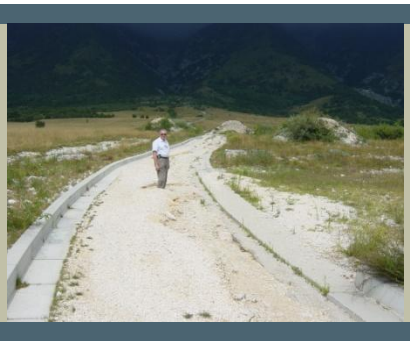
The maneuver trail in Cao Malnisio LTA is in urgent need of repair to prevent failure, which would cause the loss of the only U.S. standard record fire range in Italy and result in flooding damage to an Italian highway and local hotel.

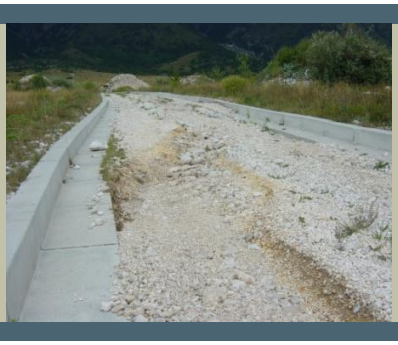
Benefit to Training

A 2004 renovation led to major erosion of the maneuver trail in the training area. Because this trail is used by troops and RTSC Italy staff to install and service targets in the TA, the loss of the trail would increase the work load and the manpower to maintain the target placement and servicing. The result of damage to Italian-owned infrastructure as a result of American construction activities would result in negative political fallout with the Italian Army and government.

This is the only U.S. standard record fire range in Italy for weapons up to 7.62 mm. Without this LTA, troops would have to use alternate qualification table or convoy 12 hours, resulting in additional cost in dollars, time, and complexity of going across international borders with weapons.

Firing range at Cao Malnisio, before repair.





FY10 ITAM Program

Photo courtesy: www.army.mil

FY10 PROJECTS

Table 11 - FY10 Projects

Training Area	RTSC	Title	Com-ponent	Estimated Cost	Status
Baumholder (U.S.)	Baumholder	Repair Training Facility Access Trails	ITAM	$112,240.99	Validated
Baumholder (U.S.)	Baumholder	Repair KD Drainage & Trails	ITAM	175,013.92	Validated
			RTSC Baumholder TOTAL	**$287,254.91**	
Schwetzingen	Mannheim	Underbrush Clearing	LRAM	$42,000.00	Validated
Boeblingen	Mannheim	Repair South Trail	LRAM	183,834.67	Validated
Boeblingen	Mannheim	Install Seibert Stakes	LRAM	10,774.98	Validated
Lampertheim TA	Mannheim	Repair Maintain LTA Maneuver Trail	LRAM	50,000.00	Adjusted
			RTSC Mannheim TOTAL	**$286,609.65**	
Poedeldorf	Schweinfurt	Repair Maneuver Trail Area 2C	LRAM	$150,000.00	Pending
Pfaendhausen	Schweinfurt	Repair Trail at Water Crossing M-IV & M-VI	LRAM	75,172.96	Pending
Oberdachstetten	Schweinfurt	Maneuver Trail Drainage Maintenance	LRAM	233,000.00	Submitted
			RTSC Schweinfurt TOTAL	**$458,172.96**	
Babadag and Novo Selo	East	Tractor Parts	LRAM	$8,000.00	Pending
			RTSC East TOTAL	**$8,000.00**	
Several	Italy	Aerial Imagery	GIS	$258,907.27	
			RTSC Italy TOTAL	**$258,907.27**	

Baumholder (U.S.) LTA - Repair Training Facility Access Trails

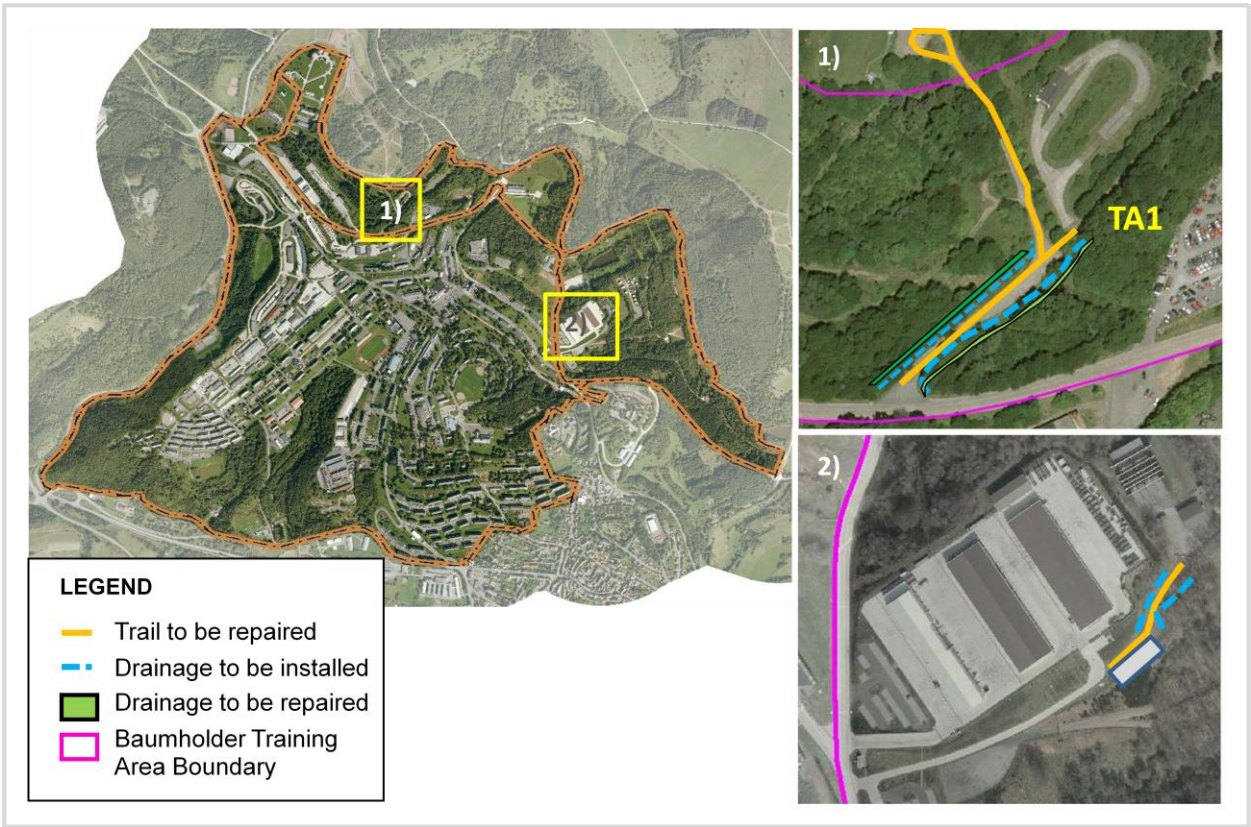


Figure 17 – Project location, Baumholder (U.S.) LTA

Purpose

The purpose of this project is to repair and resurface the access roads leading into the Conquerors Park range and into TA1 with compacted gravel. The drainage system will be restored, erosion control measures constructed and drainage ditches and culverts cleaned out.

Benefit to Training

If this project were not funded, erosion of the access road would continue, as well as flooding and pooling of range parking area and vegetation encroachment of drainage ditches.

The benefit to training is that unit training will not be disrupted during heavy OCO deployment training. Training area capabilities and accessibility will not be disrupted or limited.

FY10 LRAM - TSC Baumholder - WO # BP-139-9-P

Baumholder (U.S.) LTA - Repair KD Drainage & Trails

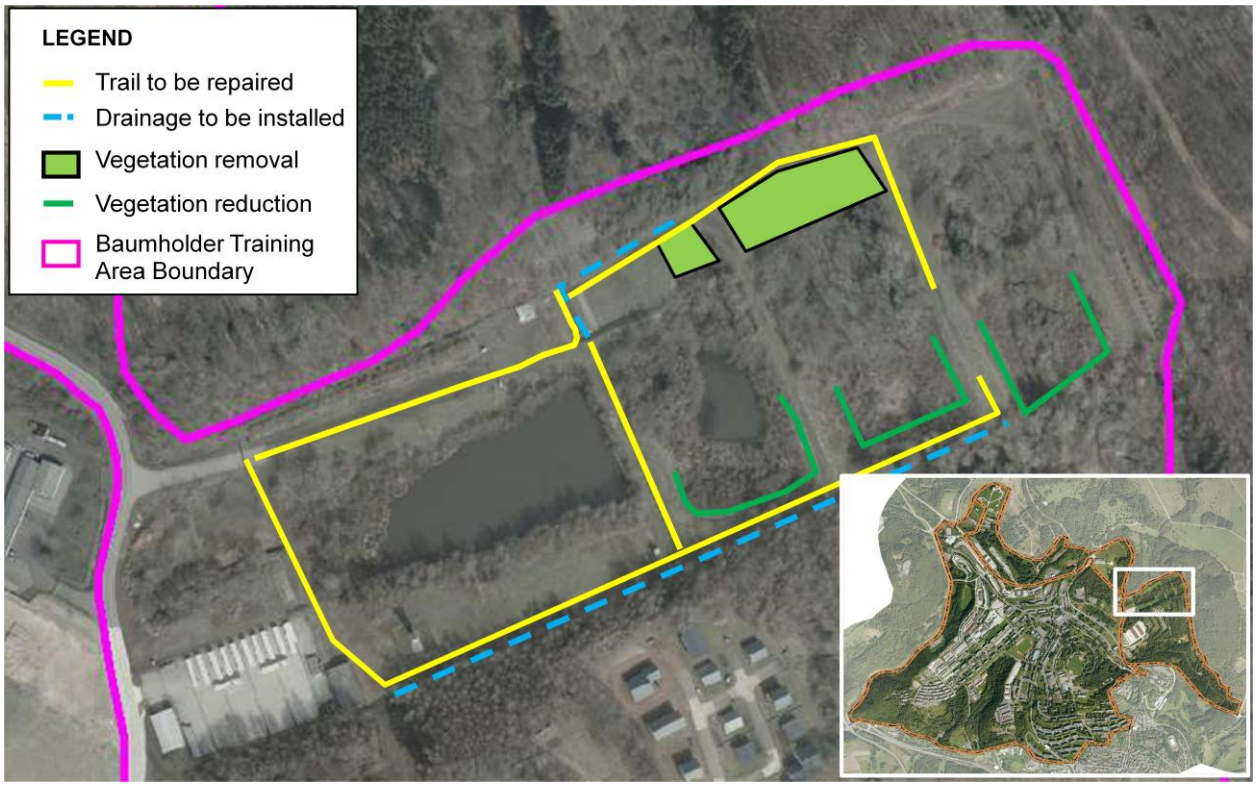


Figure 18 – Project location, Baumholder (U.S.) LTA

Purpose

The purpose of this study is to repair drainage on trails; resurface trails, base lines, and staging areas; remove vegetation; construct a boar barrier; and install culverts on KD Range.

Benefit to Training

Without funding of this project, the area would continue to degrade and become a bigger erosion concern for the area. Continued pooling, erosion, swamping of the trail, and vegetation encroachment would occur.

With repairs, unit training will not be disrupted during the heavy requirements of OCO deployment training. Training area capabilities and accessibility will not be limited.

FY10 LRAM – TSC Heidelberg - ID # TSH-6707- TJ

Schwetzingen LTA - Underbrush Clearing

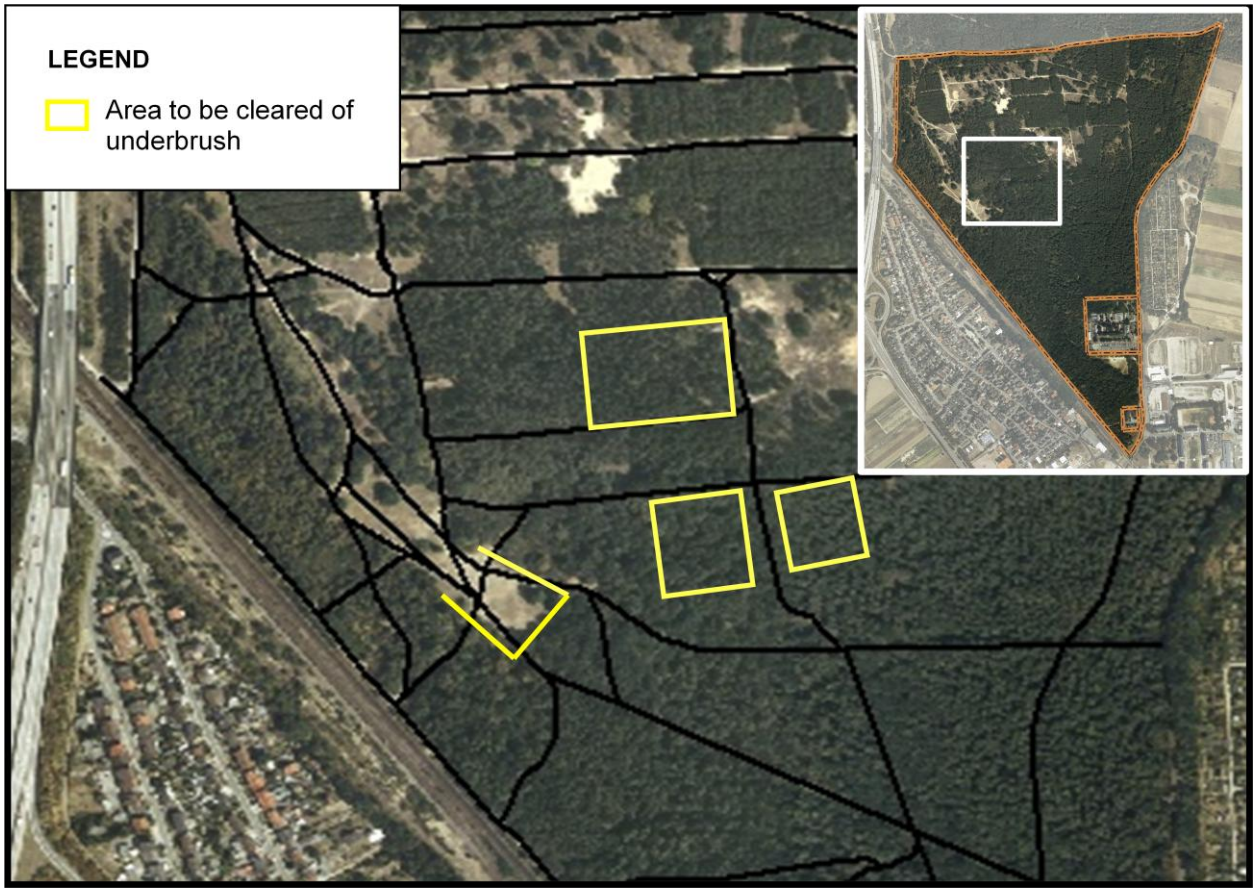


Figure 19 – Project location, Schwetzingen LTA.

Purpose

The purpose of this project is to maintain the combat/maneuver access trail. All overgrown underbrush and shrubs that prohibit the use of the bivouac site and movement on trails will be cleared. Two meters (6.5 ft) of clearance on each side of the trail is required. All dead and fallen trees, brush piles, and large stumps must be removed.

Benefit to Training

Without maintenance, movement of vehicles will be restricted, and dismounted movement will be hindered. Soldiers and units will continue to be unable to use the training area to its maximum potential and in accordance with current mission requirements.

Conducting this project allows units unrestricted training, without interference from overgrowth, allowing access to the training area, and conducting training in accordance with established METL and regulations.

FY10 – TSC Stuttgart - ID # M3-00573-7P

Boeblingen LTA - Repair South Trail

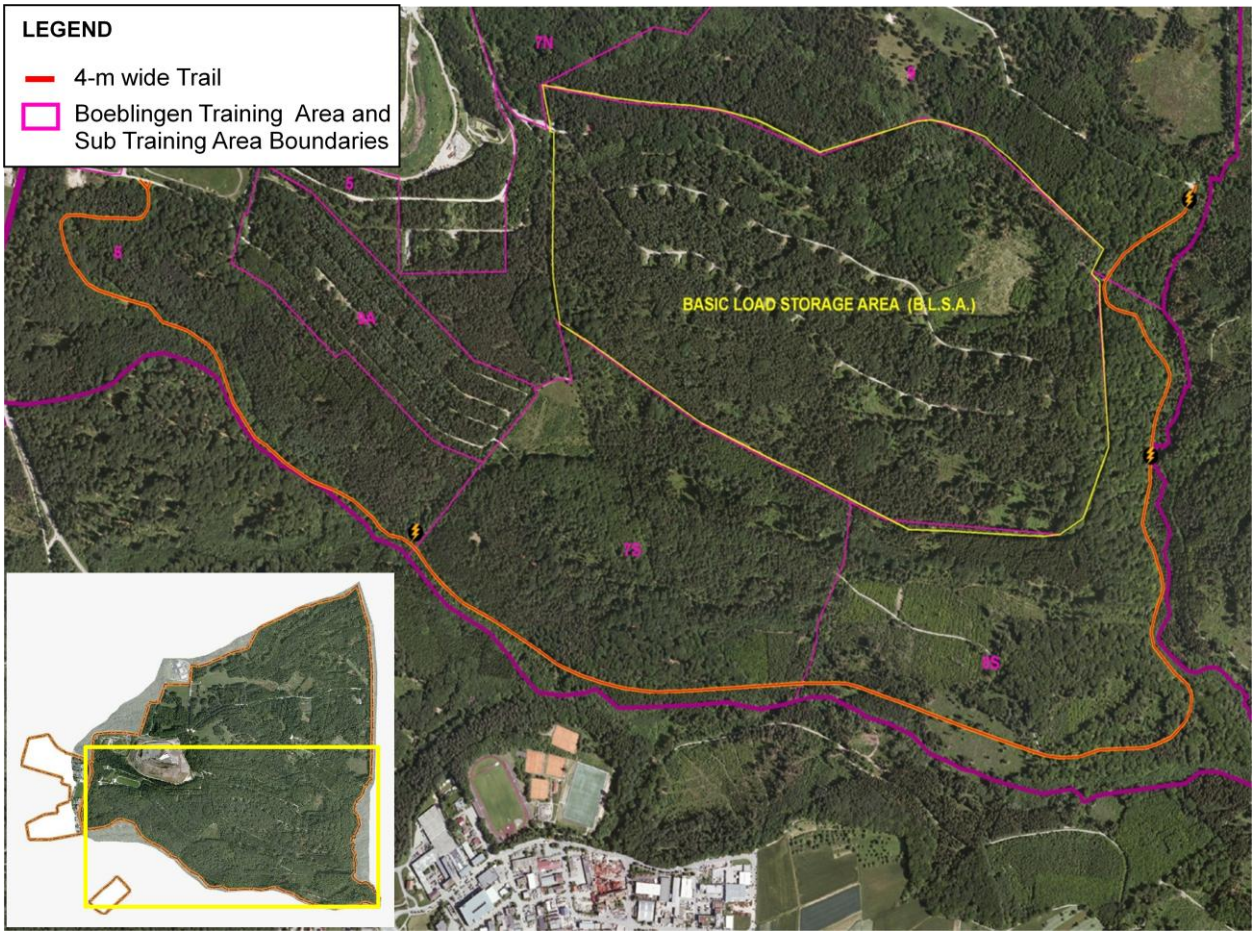


Figure 20 - Project location, Boeblingen LTA

Purpose

The purpose of this project is to repair 4.5 km (2.7 mi) of the main trail running along the south and east boundaries of the LTA. There is an existing crushed rock surface on the trail, which requires repair and re-creation of a profiled crown, and an existing drainage infrastructure linked to this trail, which requires repair and basic debris clean out. Some sections of the drainage infrastructure along the east boundary include trail support structures that must be checked for stability. With heavy vehicle use, waterlogged potholes have formed. Some blind curves require safety barriers. The trail will be repaired by re-grading, filling with crushed rock and compacting to create a profiled crown. Also, existing drainage infrastructure along the trails must be repaired.

Benefit to Training

Without repairs, the surface of the trail will continue to erode and form potholes, making it necessary to reduce speeds at which vehicles can travel and impact the conduct of safe, meaningful training. This trail provides the principal route from west to east along the south boundary of the LTA, so it links all the available training facilities.

FY10 LRAM - TSC Stuttgart - ID # M3-00576-7P

Boeblingen LTA - Install Seibert Stakes

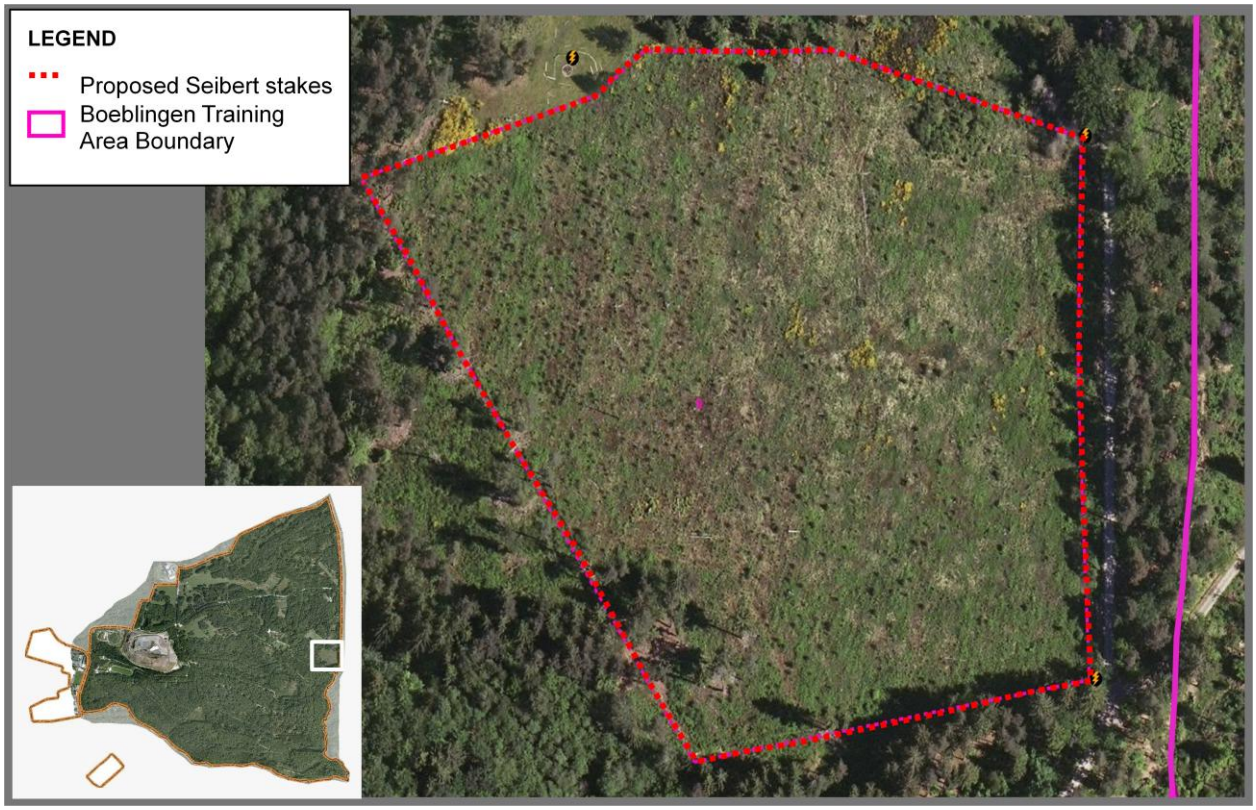


Figure 21 – Project location, Boeblingen LTA

Purpose

The purpose of this project is to maintain an area as off limits to vehicular traffic, while allowing units on foot to access and pass through to adjacent facilities. This can be achieved by removing the existing wire fencing and replacing it with Seibert Stakes.

Benefit to Training

Without this project, access will remain restricted to all forms of traffic.

Seibert stakes will ensure that vehicles are unable to damage this nursery area but that the area is not blocked off to dismounted training units.

FY10 LRAM – TSC Mannheim – NF-00241-8J

Lampertheim LTA - Repair / Maintain LTA Maneuver Trail

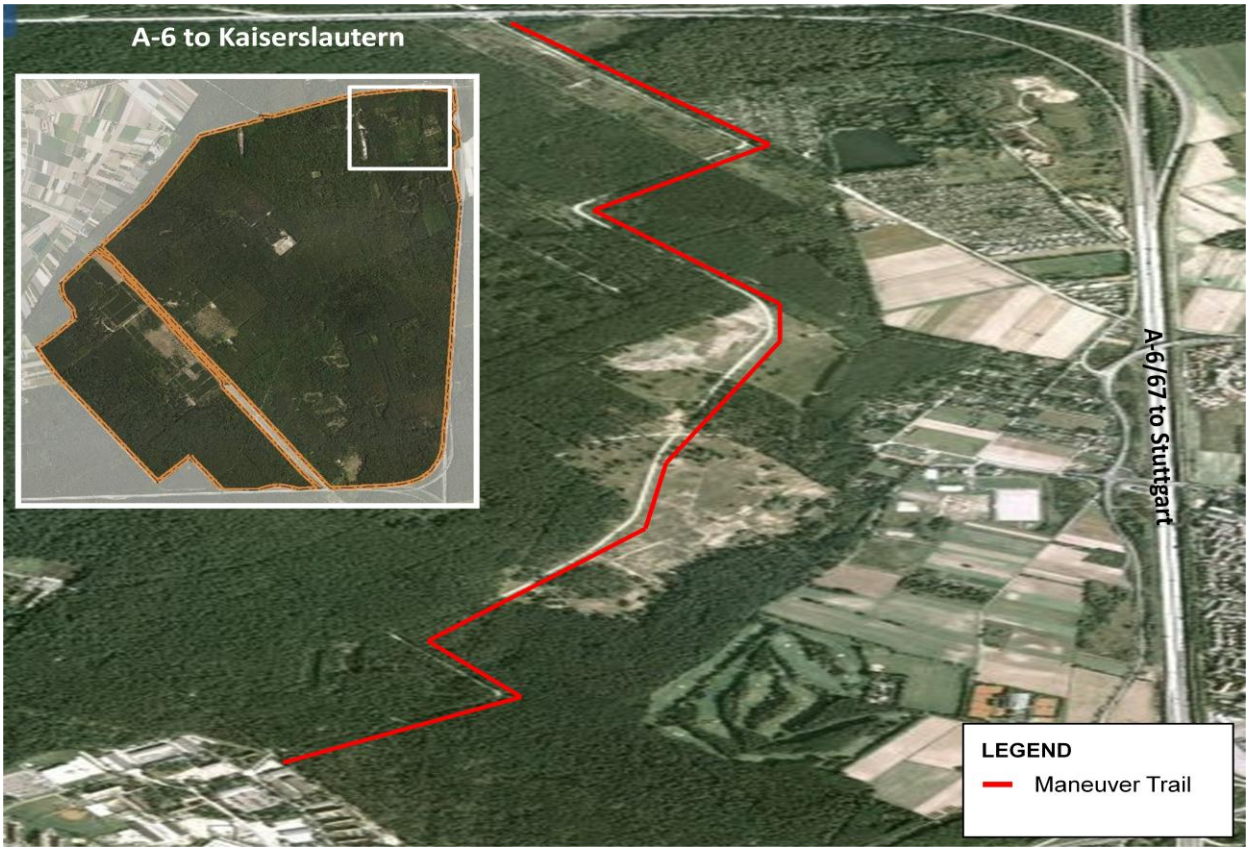


Figure 22 - Project location, Lampertheim LTA

Purpose

The purpose of this study is to repair approximately 3.8 km (2.3 mi) of trail. As necessary, potholed sections of the trail will be repaired by adding gravel and compacting as necessary and reshaping the trail crown and establishing drainage swallows on both sides of the trail to facilitate drainage and runoff from the trail surface. Cement sections will be maintained by clearing compacted mud and gravel from the surfaces, and edges of trail will be built up with gravel and compacted to create and even out the edge where the cement and trail join.

Benefit to Training

If this project is not completed, it may be necessary to close the LTA access trail for convoy traffic from Sullivan Barracks into the training area. The host nation has made known their dissatisfaction with the trail condition.

Upon successful completion of this project, unit convoys and large military vehicle traffic movement into the LTA will be supported, versus movement of this traffic through two small host nation villages.

Poedeldorf LTA - Repair Maneuver Trail Area 2C

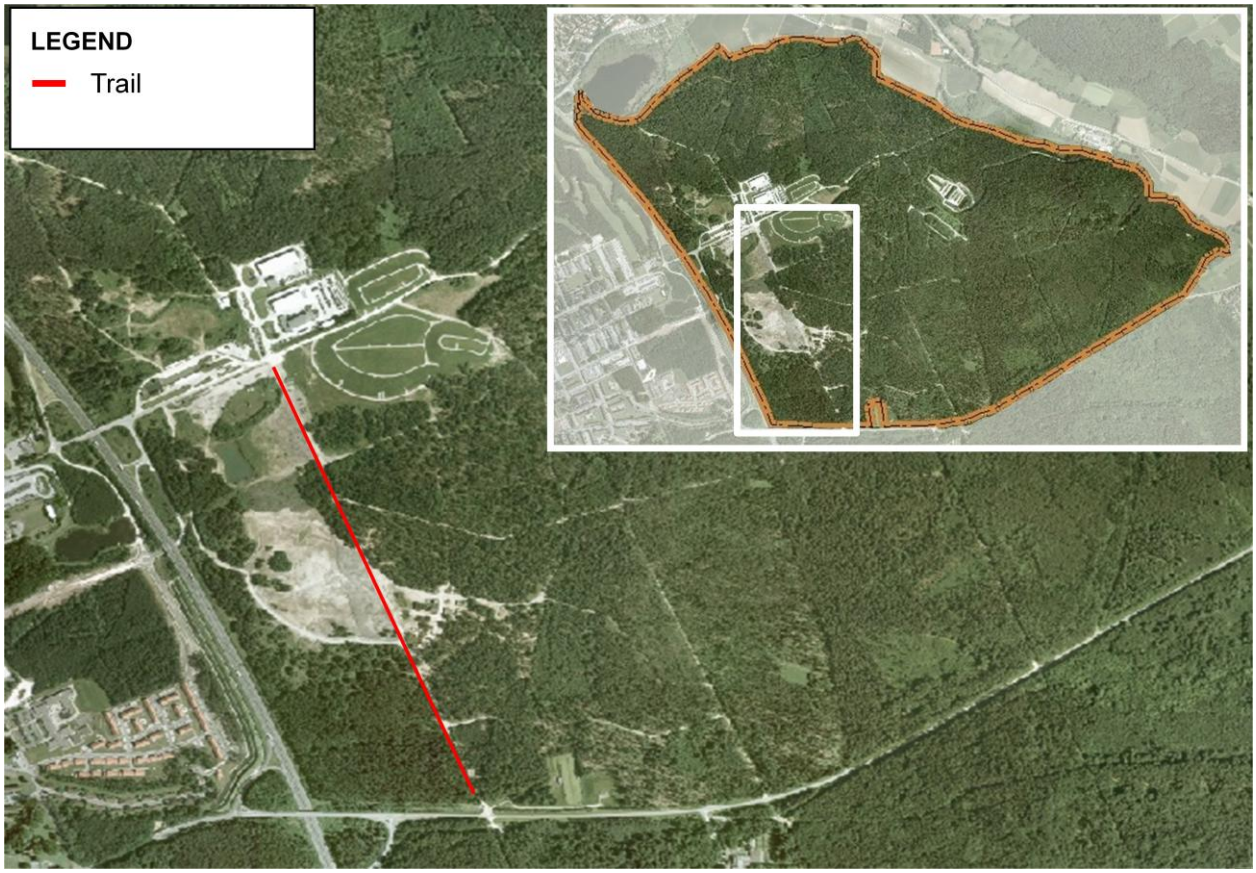


Figure 23 - Project location, Poedeldorf LTA

Purpose

The purpose of this project is to repair an existing dirt maneuver trail. The trail is currently impassable because of deep holes created by tracked vehicles. The intention is to improve the existing trail by filling in holes with crushed rock and covering with soil. Although the road is already covered with crushed rock, it was mechanically crushed, and surface water can not sufficiently drain from the areas. With insufficient drainage, gully erosion is taking place.

Benefit to Training

If this project were not funded, training and access by tactical vehicles to TA 2C and MOUT facilities would be limited. The benefit of completing this project will be that units can access TA 2C and the MOUT site on Poedeldorf LTA.

FY10 LRAM – TSC Schweinfurt - TL-00009-6P

Pfaendhausen LTA - Repair Trail at Water Crossing M-IV & M-VI

Figure 24– Project location, Pfaendhausen LTA

Purpose

The purpose of this project is to repair two sections of M1 tank-damaged trail leading east (453 m or 0.28 mi) and west (400 m or 0.25 mi) of the first (northernmost) turn pad and to install two culverts where the west-leading trail meets the first turn pad, to improve drainage. In addition, a culvert will be installed to link the drainage ditch running along the trail leading west of the third culvert (south-most) to the main N-S drainage/water course. The drainage ditches on both sides of the west-leading trail from the third turn pad will be repaired.

Benefit to Training

Without funding of this project, trails would become impassable, restricting training. The steep sections of trail on either side of the turn pads would continue to erode and become impassable in wet conditions, and the area will remain at risk for flooding.

Once this project is finished, unit maneuverability will be enhanced. The two sections of trail requiring repair provide a primary E-W link from the open maneuver and demonstration area in the east of Area Dagger to the DZ in the west. The turn pads are heavily used, and repair of the the associated drainage system ensures flood water is controlled along this valley bottom.

Oberdachstetten LTA - Maneuver Trail Drainage Maintenance

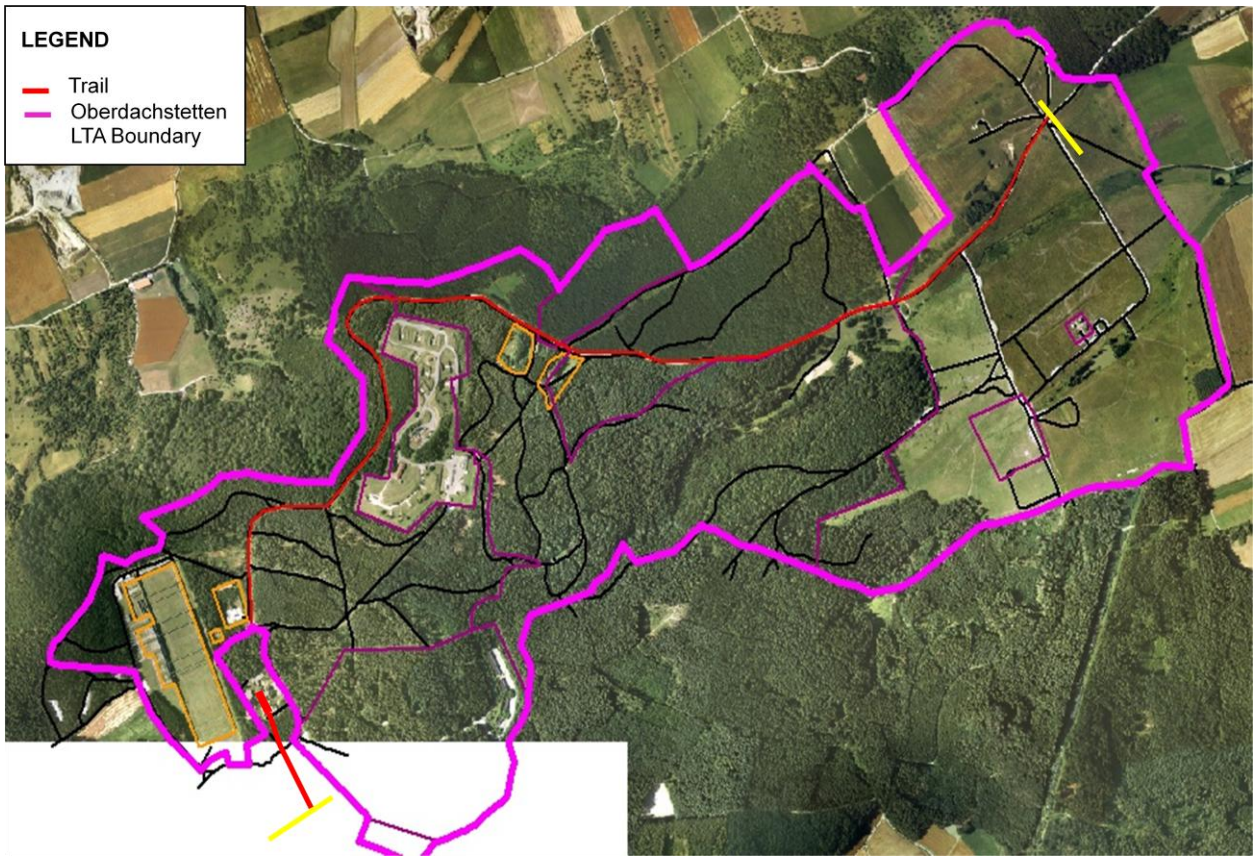


Figure 25– Project location, Oberdachstetten LTA

Purpose

The purpose of this project is to maintain drainage channels and culverts on an almost 4-km (2.4-mi) section of the Oberdachstetten Maneuver Trail. This area has become progressively clogged by vegetation growth, siltation, and other blockages carried downstream by storm water. This leads to a major reduction in capacity of the storm water drainage system. High rainfall events lead to flow volumes exceeding the capacity of the system, resulting in localized flooding and severe damage to trails and open maneuver areas.

Benefit to Training

Without funding of this project, safety and FFH environmental issues would result, and safe access to the training area by units would be affected, negatively impacting training.

The Maneuver Trail Drainage Maintenance will allow units to safely access all training areas within the LTA, increasing unit training scenarios and providing safer road marches, driver training, and convoy procedures.

FY10 GIS - RTSC Italy

Various locations (RTSC Italy) - Aerial Imagery

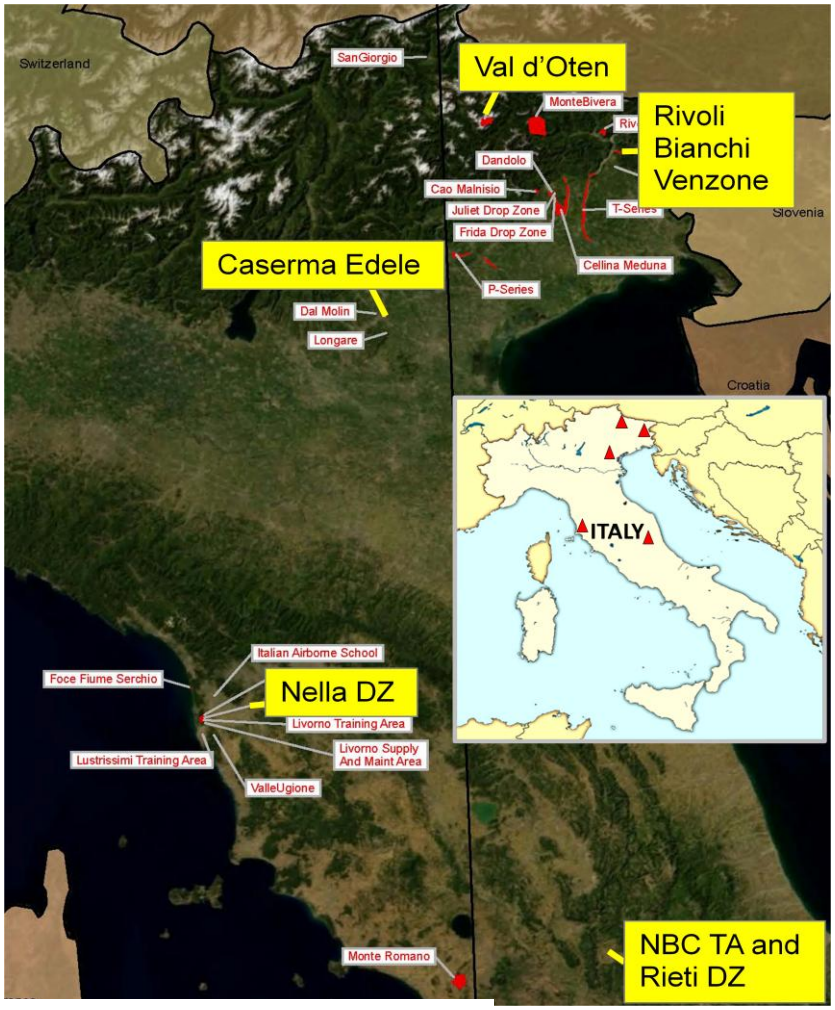


Figure 26 - FY10 Italy aerial imagery locations (yellow boxes).

Purpose

The purpose of this project is to provide quarter meter true-color orthoimagery for the following training areas as prioritized by RTSC and SETAF G3: Val d'Oten, Caserma Ederle, Rivoli Bianchi Venzone, Nella DZ, and NBC Training Area and Rieti DZ.

Benefit to Training

Minimal GIS baseline data exists for the Italian TAs and ranges used by SETAF/173d. Without the zero layer produced in this project, a further GIS data build would be extremely costly and would jeopardize the planning of critical land repair projects.

APPENDIX A - FY08 UPDATE

FYO8 ITAM WORKPLAN

The final ITAM work plans for FY08 for the Local Training Areas are shown in Table 12. All projects on the list were approved for funding. Seven projects were still ongoing in FY09; although, the Oberdachstetten LTA tractors and attachments were delivered in February 2009. All of these projects are covered in the FY08 Report. Projects in black were completed in FY08 and are covered in the FY08 Status Report. Projects in blue text were incomplete as of the end of FY08 and are updated in the following pages.

Table 12 – FY08 RTSC ITAM Projects

Training Area	RTSC	Project ID	Title	Com-ponent	Actual Cost	Project Status
Baumholder	RTSC Baumholder	W912GB-04-D-0042 TO 0043	Repair TCPC Access Road	LRAM	$143,024.62	Complete
Baumholder	RTSC Baumholder	W912GB-04-D-0042 TO 0055	Repair Staging Area	LRAM	18,797.89	Complete
Baumholder	RTSC Baumholder	W912GB-04-D-0042 TO 0054	Baumholder LTA Repairs and Reconfig	LRAM	208,908.00	Complete
Breitenwald	RTSC Baumholder	W912GB-04-D-0042 TO 0055	LTA Repair (LTA 1)	LRAM	59,392.31	Complete
Breitenwald	RTSC Baumholder	W912GB-04-D-0042 TO 0055	LTA Reconfiguration (LTA 2 Phase: 1 and 2)	LRAM	$29,646.67	Complete
Breitenwald	RTSC Baumholder	W912GB-04-D-0042 TO 0055	Repair LTA4 Bivouac Site Trails and Access	LRAM	$32,045.83	Complete
Mainz-Layenhof[2]	RTSC Baumholder	W912GB-04-D-0042 TO 0054	Reconfigure Mainz-Layenhof LTA	LRAM	146,598.03	Complete
Mainz-Layenhof	RTSC Baumholder	W912GB-04-D-0042 TO 0054	Repair Drainage at MOUT Site	LRAM	86,404.17	Complete
				RTSC Baumholder TOTAL	**$724,817.52**	
Boeblingen	RTSC Mannheim	W912GB-04-D-0042 TO 0050	Repair Trail Area 8	LRAM	139,750.00	Complete
Boeblingen	RTSC Mannheim	W912GB-04-D-0042 TO 0056	Repair N/S Trail	LRAM	120,000.00	Complete
Boeblingen	RTSC Mannheim	W912GB-04-D-0042 TO 0049	Repair Wetzel Trail	LRAM	130,500.00	Complete
				RTSC Mannheim TOTAL	**$390,250.00**	
Oberdachstetten	RTSC Schweinfurt	W912PG-08-C-0020	Maintain Erosion Structures	LRAM	6,638.49	Complete
Oberdachstetten	RTSC Schweinfurt	W912PG-08-C-0020	Create Drainage Channel/Low Water Crossing	LRAM	2,127.56	Complete
Oberdachstetten	RTSC Schweinfurt	WO# TRO-00006-8P	Funding for Tractor / Attachments	LRAM	45,296.62	Delivered 11 Feb 09
Pfaendhausen	RTSC Schweinfurt	W912PG-07-D-0007	Excavate Sediment Basin	LRAM	8,200.00	Complete.
Poedeldorf	RTSC Schweinfurt	WO# IG8-00016/7	Install Seibert stakes (Area1B)	LRAM	5,000.00	Complete
Poedeldorf	RTSC Schweinfurt	WO# IG8-00023/7	Repair Trail (Area 1B & 2B)	LRAM	30,253.20	Complete
Poedeldorf	RTSC Schweinfurt	WO# IG8-00017/7	Erosion Control (MOUT Site)	LRAM	20,000.00	Complete
Poedeldorf	RTSC Schweinfurt	WO# IG8-00018/7	Repair Trails (Area A)	LRAM	12,000.00	Complete
				RTSC Schweinfurt TOTAL	**$129,515.87**	

[2] Text in blue denotes projects that were incomplete as of FY08 and that are updated in this section.

FY08 Project Reviews - RTSC Baumholder

FY08 RTSC Baumholder ITAM Program Goals

Goal 1. Maximize training land sustainability.

- Aggressively seek and obligate funds for projects as funds become available, and execute as soon as weather or other conditions permit.
- Review, update, and publish ITAM Five Year plan.
- Continually conduct assessments of training requirements and training land capabilities.

Goal 2. Provide quality information.

Goal 3. Increase SRA Outreach and Inreach.

The primary goal of the ITAM program is to maintain the training environment in a 100%-readiness condition. To meet this goal, the ITAM work plan was prepared in such a way that available funds can be executed throughout the year, with the entire work plan being funded.

FY08 RTSC Baumholder ITAM Program Accomplishments

There were no TRI, SRA, GIS, or RTLA projects for RTSC Baumholder in FY08.

LRAM

The predominant problems encountered within RTSC Baumholder relate to trail repair and maintenance, the repair and establishment of staging areas, opening up of bivouac sites, and the creation of adequate drainage systems. The LTAs within RTSC Baumholder are relatively small, so trail projects have focused on simplifying and improving access to facilities, rather than open area maneuver. There was one project designed to improve the use of available open maneuver space at Mainz-Layenhof LTA.

FY08 RTSC Baumholder Objectives

- Provide preventive and corrective land rehabilitation and maintenance measures;
- Track progress of projects; and
- Recommend future improvements to maintain integrity of training resources.

FY08 RTSC Baumholder Measures of Effectiveness

Each of the projects conducted by RTSC Baumholder LRAM is intended to fulfill one or more of the following:

- Sustain long-term training lands held under the stewardship of the U.S. Army.
- Sustain the overall condition of installation lands to ensure long-term military viability of its installations.
- Increase mobility, access, and availability within and between training areas.

FY08 LRAM – TSC Wiesbaden – W912GB-04-D-0042 TO 0054

Mainz-Layenhof LTA - Reconfigure Mainz-Layenhof LTA

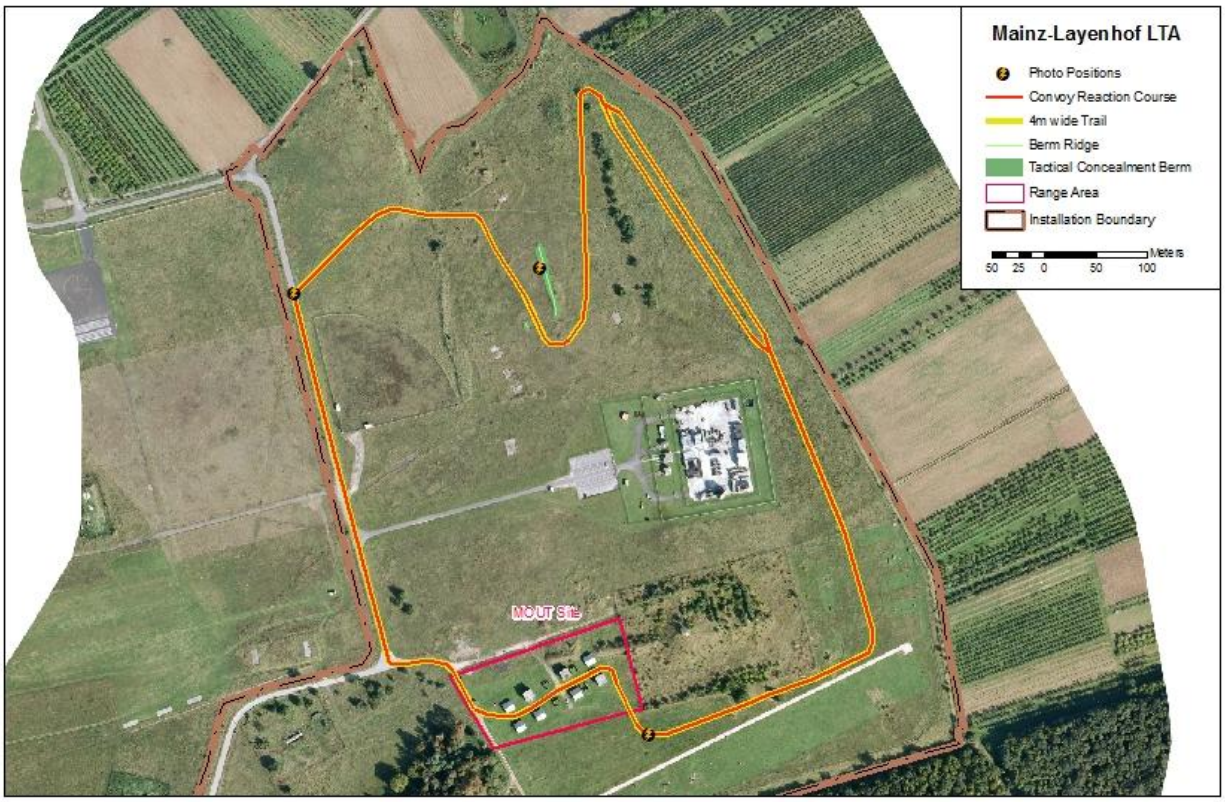


Figure 27– Project location, Mainz-Layenhof LTA

Benefit to Training

This project provides a dedicated area to enhance vehicle driving and offensive and defensive training tasks and provide potential for small unit training using portable targetry, IED training devices, and force-on-force training. The number of skills that can be trained in the LTA and the MOUT site is increased with this reconfiguration, increasing training capabilities for units prior to deployment.

***Left and middle*: Reconfigure LTA, before.**
***Right*: After.**

FY08 Project Reviews - RTSC Schweinfurt

FY08 RTSC Schweinfurt ITAM Program Goals

Goal 1. Maximize training land sustainability by maintaining the quality of the training land and opening up more usable space for training.

- Aggressively seek and obligate funds for projects as funds become available, and execute as soon as weather or other conditions permit.
- Review, update, and publish ITAM Five Year plan.
- Continually conduct assessments of training requirements and training land capabilities.

Goal 2. Provide quality information.

Goal 3. Increase SRA Outreach and Inreach.

The primary goal of the ITAM program is to maintain the training environment in a 100%-readiness condition. To meet this goal, the ITAM work plan was prepared in such a way that available funds can be executed throughout the year, with the entire work plan being funded.

FY08 RTSC Schweinfurt ITAM Program Accomplishments

There were no TRI, SRA, GIS, or RTLA projects for RTSC Schweinfurt in FY08.

LRAM

The predominant training land problems encountered within RTSC Schweinfurt relate to poor drainage and subsequent erosion and site damage. Other issues arise from a lack of maneuver space and an insufficient road and trail network. To help correct these issues, projects in FY08 accomplished the following:

- Managed storm-water drainage and controlled erosion.
- Alleviated saturated soil conditions by improving drainage.
- Repaired trail damage and hardened trail surfaces.
- Re-established trails to open up maneuver space and improve links to and between specialized training facilities.

FY08 RTSC Schweinfurt Objectives

- Provide preventive and corrective land rehabilitation and maintenance measures;
- Track progress of projects; and
- Recommend future improvements to maintain integrity of training resources.

FY08 RTSC Schweinfurt Measures of Effectiveness

Each of the projects conducted by RTSC Schweinfurt LRAM is intended to fulfill one or more of the following:

- Sustain long-term training lands held under the stewardship of the U.S. Army.
- Sustain the overall condition of installation lands to ensure long-term military viability of its installations.
- Increase mobility, access, and availability within and between training areas.

FY08 LRAM – TSC Ansbach- W912PG-08-C-0020

Oberdachstetten LTA - Create Drainage Channel/Low Water Crossing

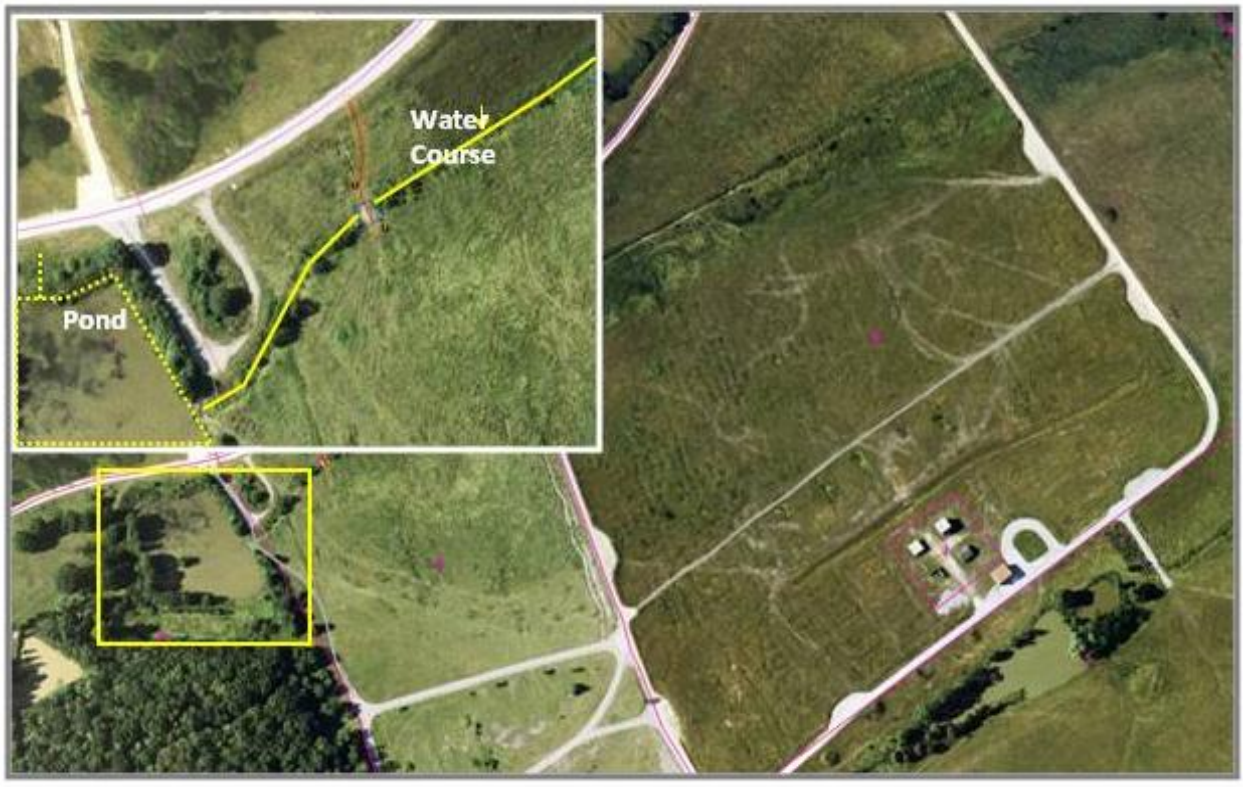


Figure 28 – Drainage channel/low water crossing location, Oberdachstetten LTA.

Benefit to Training

This project allows units to access this area for training, increasing unit training scenarios and usable training land. The low-water pass provides one of two primary access routes from the main tank trail to Area D. This measure was also designed to control runoff that resulted in flooding and, subsequently, saturated soil, that was then prone to damage by vehicles.

***Left*: Area of low-water crossing before.**
***Middle*: Low-water crossing during.**
***Right*: Low-water crossing after.**

FY08 LRAM – TSC Ansbach – W.O.# TRO-00006-8P

Oberdachstetten LTA - Purchase of Tractor with Attachments

Benefit to Training

The purpose of this project was to purchase a tractor and attachments for more efficient range and training land maintenance.

Having new equipment increases the efficiency of range maintenance activities. By completing these tasks more quickly, the ranges can be open for training for longer periods of time and can be used more effectively.

Above: *John Deere 2520 Compact with cutter, catcher, and hydraulic package.*

Top, left: *Hydraulic bucket.* ***Top, right:*** *Berm cutter.* ***Bottom, left:*** *Rear mulcher.* ***Bottom, right:*** *Street sweeper.*

FY08 LRAM – TSC Schweinfurt – W912PG-07-D-0007

Pfaendhausen LTA - Excavate Sediment Basin

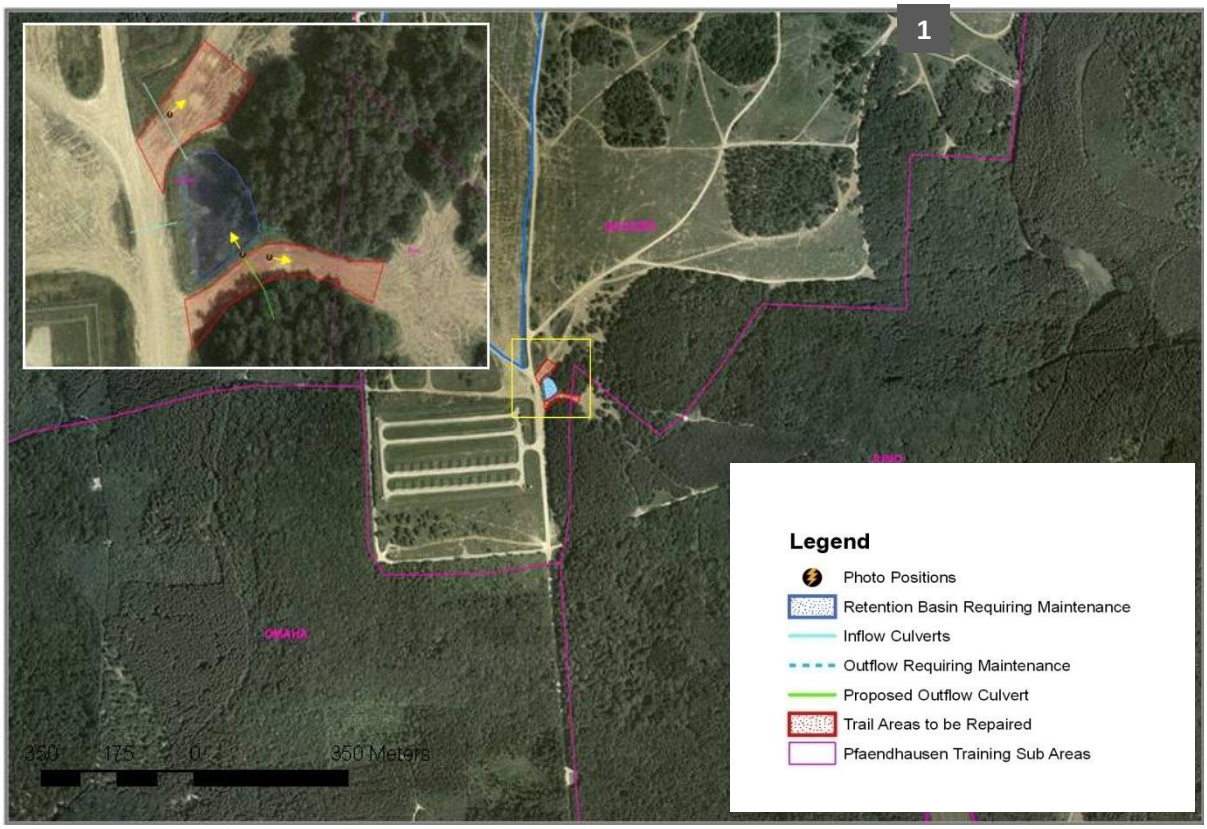


Figure 29 – Sediment basin location, Pfaendhausen LTA.

Benefit to Training

With excavation of the sediment basin, it will now function at its full capacity and prevent localized flooding to this section of the training area (at the primary southern junction of the drop zone) and to the rest of the open maneuver space in Area Dagger.

.

***Left to right*: Trail, before; sediment pond, before; culvert, after; trail and sediment pond, after.**




FY08 LRAM – TSC Bamberg – WO# IG8-00016/7

Poedeldorf LTA - Install Seibert Stakes (Area 1B)

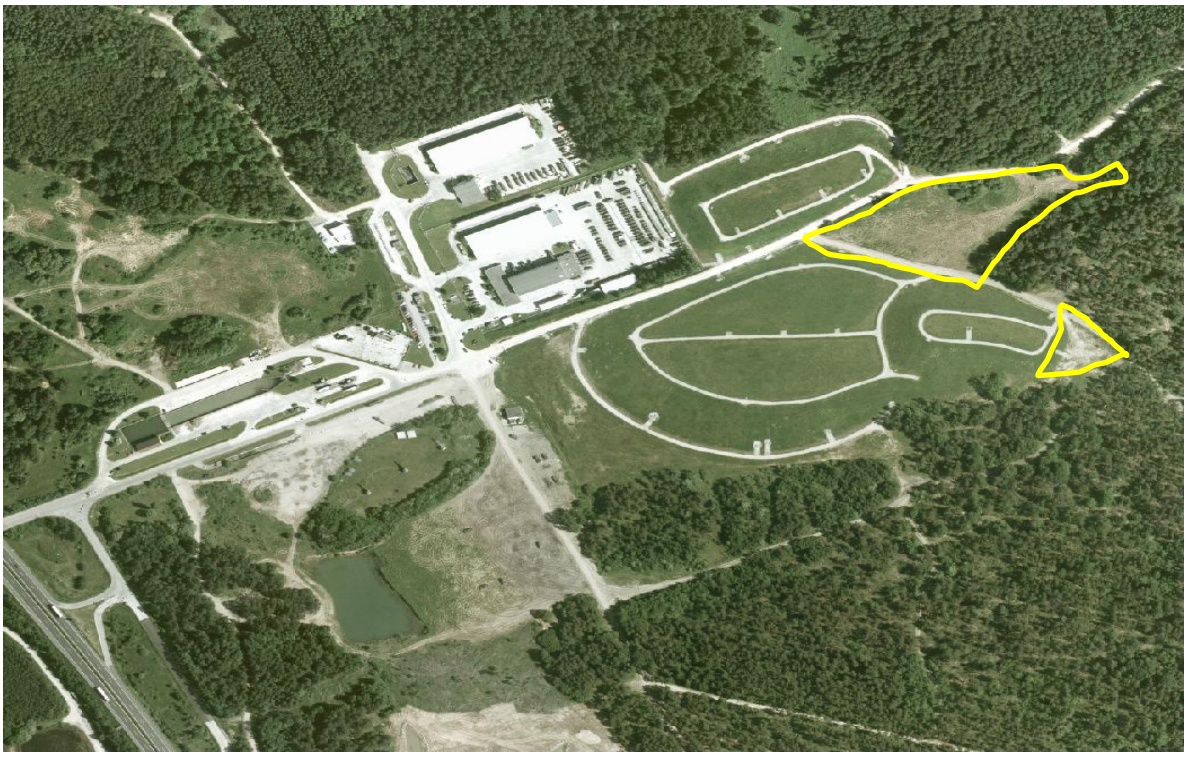


Figure 30 - Project location, Poedeldorf LTA.

Benefit to Training

This project restricts vehicle access to this area, reducing future damage and allowing natural rehabilitation. Improved drainage will minimize erosion problems.

Left to right: **Ditch, before; degraded area, before; ditch, after; degraded area, after.**

FY08 LRAM – TSC Bamberg – WO# IG8-00017-7

Poedeldorf LTA - Erosion Control (MOUT Site)

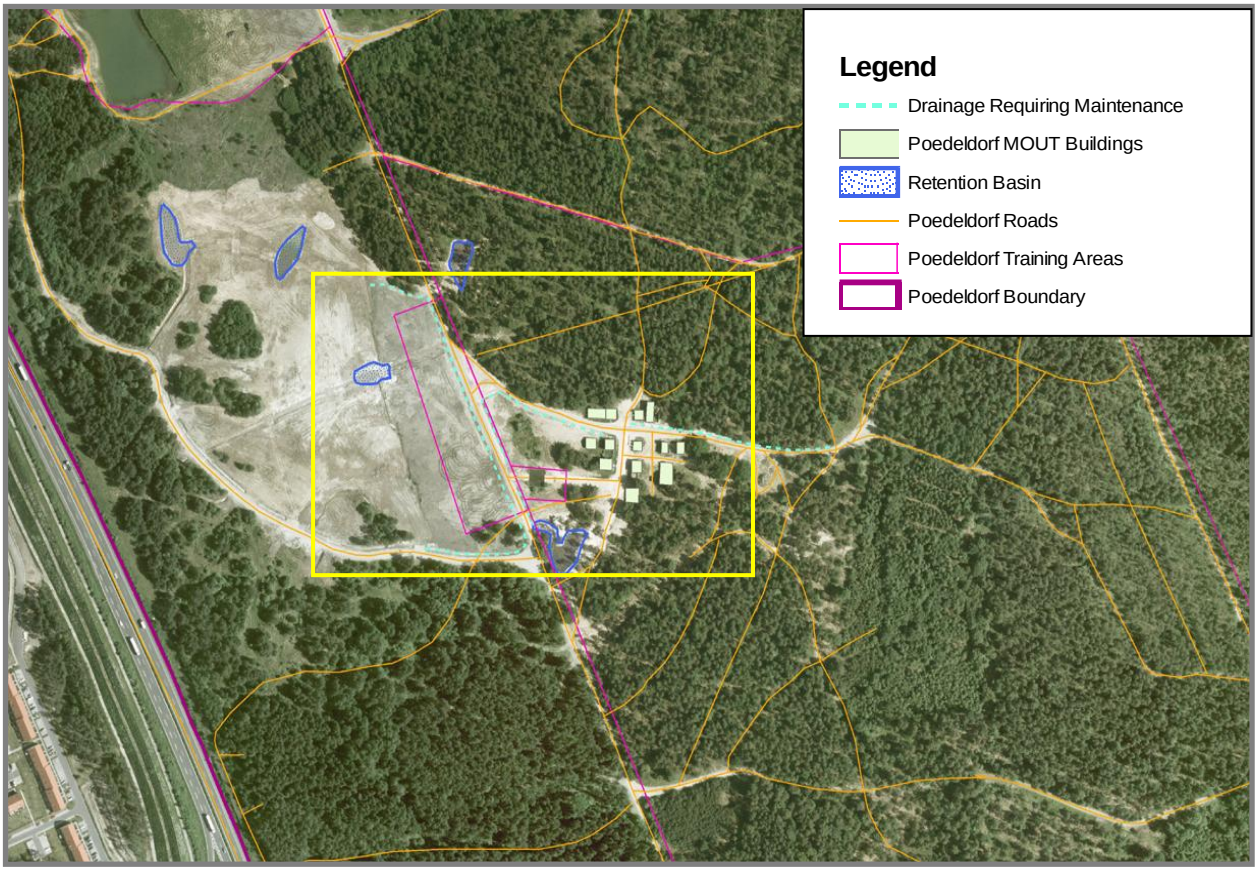


Figure 31 – Poedeldorf LTA MOUT site location.

Benefit to Training

Water is controlled and channelled away from the MOUT site facilities, preventing damage to them and keeping the MOUT operational year-round.

***Left*: Ditch, before.**
***Middle*: Culvert, before.**
***Right*: Ditch after.**

FY08 LRAM – TSC Bamberg – WO# IG8-00018/7

Poedeldorf LTA - Repair Trails (Area A)

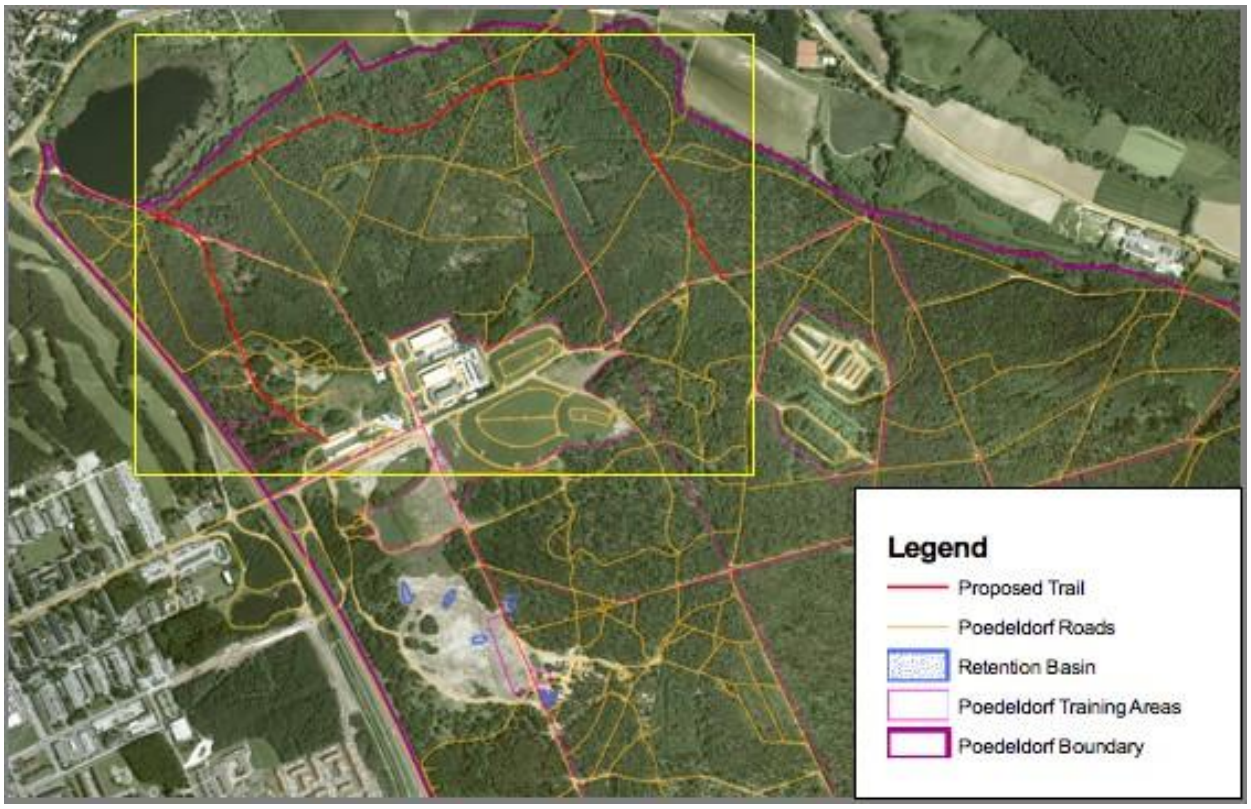


Figure 32 – Area A trail location, Poedeldorf LTA.

Benefit to Training

These trail repairs allow tactical vehicles to access Training Area A. This trail comprises the principal access route to the northern section of the LTA, an area that was, before this project, not heavily used. Repairing the trail is the first step to opening up this larger area to training units.

Left and right: **Trail, before.**

APPENDIX B - FY07 ITAM Projects

FY07 Workplan Summary

Training Area	RTSC	Title	Component	Actual Cost
Boeblingen	RTSC Mannheim	Trail Repair and Install Drainage	LRAM	$127,000.00
Boeblingen	RTSC Mannheim	Repair Gerenklinge Trail	LRAM	78,727.88
Lampertheim	RTSC Mannheim	Main Tank Trail Phase 4	LRAM	53,000.00
Lampertheim	RTSC Mannheim	Repair Trails NS1/NS2/E&W	LRAM	329,471.00
Lampertheim	RTSC Mannheim	Trail repair A3	LRAM	299,984.00
			RTSC Mannheim TOTAL	**$888,182.88**
TSC Bamberg	RTSC Schweinfurt	Turn Pads/Low Crossing (Bamberg)	LRAM	$50,720.00
TSC Bamberg	RTSC Schweinfurt	Excavate Sediment Basin (Bamberg)	LRAM	87,488.00
TSC Bamberg	RTSC Schweinfurt	Construct Storm Water Drainage System	LRAM	98,279.95
Oberdachstetten	RTSC Schweinfurt	Trail Repair (Ansbach)	LRAM	25,516.93
Sulzheim	RTSC Schweinfurt	Clear Open Area from Bushes (blackthorn)	LRAM	7,400.00
			RTSC Schweinfurt TOTAL	**$269,404.88**

APPENDIX C - Acronyms and Abbreviations

ACE	Armored Combat Earthmover
ACOM	Army Command
ASCC	Army Service Component Command
BMP	Best Management Practices
CLINS	Contract Line Items
CPQC	Combat Pistol Qualification Course
DA	Department of Army
DAMO-TRS	Department of the Army Management Office – Training Simulations
DoD	Department of Defense
DOT	Director of Training
DPW	Directorate of Public Works
EMO	Environmental Management Office
EQCC	Environmental Quality Control Committee
EST	Engagement Skills Trainer
EUD	European District
FFH	Flora Fauna Habitat
FFO	Federal Forestry Office (German)
FGDC	Federal Geographic Data Committee
FY	fiscal year
GIS	Geographic Information Systems
HMMWV	High Mobility Multi-wheeled Vehicle
HQDA	Headquarters, Department of the Army
IED	Improvised Explosive Device
IMCOM	Installation Management Command
ITAM	Integrated Training Area Management
JMTC	Joint Multinational Training Command
LRAM	Land Repair and Maintenance
LTA	Local Training Area
m	meter
MDEP	Management Decision Package
MILES	Multiple Integrated Laser Engagement System

MOUT	Military Operations in Urban Terrain
NBC	Nuclear, Biological, and Chemical
OCO	Overseas Contingency Operations
OMA	Operations and Maintenance, Army
PBAC	Program Budget Advisory Committee
PM	Program Manager
PMI	Preliminary Marksmanship Instruction
PMR	Program Management Review
RTLA	Range and Training Land Assessment
RTSC	Regional Training Support Center
SEE	Small Equipment Excavator
SETAF	U.S. Army Southern European Task Force
sqm	square meter
SRA	Sustainable Range Awareness
SRM	Sustainment, Restoration, and Modernization
SRP	Sustainable Range Program
TADS	Target Acquisition Detection System
TATM	Management Decision Package, Integrated Training Area Management Program
TCPC/BCPC	Tank Crew Proficiency Course/Bradley Crew Proficiency Course
TRI	Training Requirements Integration
TSAE	Training Support Activities, Europe
TSC	Training Support Center
TT PEG	Training Program Execution Group
UFR	Unfinanced Requirements
USACE	U.S. Army Corps of Engineers
USAG	U.S. Army Garrison
USAREUR	U.S. Army Europe

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For more information about the ITAM Program,
please visit the USAREUR Sustainable Range Program webpage:
https://srp.usareur.army.mil